

**Report of the
Commissioners
of the
District of
Columbia**

1878

(Washington, DC)



ANNUAL REPORT

OF THE

COMMISSIONERS

OF THE

DISTRICT OF COLUMBIA

FOR

THE YEAR ENDING JUNE 30, 1878.

District of Columbia Commissioners



WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1878.

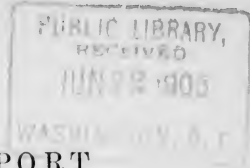
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ANNUAL REPORT
OF THE
COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

OFFICE OF THE COMMISSIONERS OF THE
DISTRICT OF COLUMBIA,
Washington, November 26, 1878.

To the PRESIDENT:

Selected by you to be Commissioners under the act of Congress providing a permanent form of government for the District of Columbia, approved June 11, 1878, we entered on our duties on July 1 last, and organized immediately as a board by the election of a president. It now becomes our further duty, under said act, to present to you for transmission to Congress our first report.

The Commissioners of the District of Columbia, appointed under the act of Congress approved June 20, 1874, made four annual reports, bringing down the record of their transactions, however, only to November 1, 1877. The reports of the heads of the several departments of the District government, submitted herewith, exhibit the transactions from November 1, 1877, to June 30, 1878, and complete the record of the former commission government.

It is proposed hereafter to submit both reports and estimates to correspond with the fiscal year observed by the United States.

The condition of the streets and sewers of the city presents the most serious question the Commissioners have had to consider, embracing outlays of an imperative character, which the present revenue of the District is inadequate to meet, otherwise than by extending the work through several years of time, while health, convenience, progress, and the maintenance of property values are dependent upon its being promptly done. Under ordinary circumstances the treasury of the District, on the present basis of taxation, would be able to meet all reasonable demands for improvements; but the extent of rotten wood pavements and the evil of overflow from the sewers have grown to proportions beyond the scope of current revenues.

The Commissioners, in obedience to the requirement of the act of June 11, 1878, submitted to the Secretary of the Treasury estimates for the fiscal year ending June 30, 1879, and June 30, 1880. For the former of these years the estimated expenditures were made to fall within the estimated receipts; but for the latter year the estimated expenditures, including a supplemental estimate, exceed the estimated receipts by \$1,339,886.84. Great embarrassment has been caused by the necessity to present such estimates, and they have been submitted only in the expectation that some way might be devised by Congress, through a tem-

porary advance or otherwise, to enable the District to remove the rotten pavements, and to construct a system of auxiliary sewers. The work included in these estimates would place the present paved streets and the sewers in a thoroughly good and substantial condition, rendering the scale of expenditures thereafter much less than that embraced in the estimates for these two years, and would place the finances of the District in such condition that on the present basis of revenue \$500,000 per year could be set apart, if necessary, to repay the advance suggested as a way out of this difficulty.

In this connection we venture to refer to the exhibit which has been prepared under the direction of the Treasury Department, showing all the expenditures made from the national Treasury for national and District purposes within the District of Columbia from 1790 to 1876. From this exhibit it appears that the total expenditure by the United States Government within the District since the foundation of the capital city to the year of 1876 had been \$92,112,395.87. Of this amount, \$29,311,950.66 was expended for local government purposes and for purposes in which the people of the District had joint interest with the United States; but the general government realized about \$2,000,000, as far as we can learn, from the sale of lots in Washington. Making this deduction, it appears that the whole expenditures paid directly from the United States Treasury amount to \$27,311,950.66. This sum embraces, besides the usual aid to police, health, and fire departments, expenditures for improving the public grounds—Capitol and Presidential included, the Botanical Garden, together with their keepers, watchmen, laborers, and all other current expenses; the construction and maintenance of hospitals, infirmaries, and jails; the support of prisoners at penitentiaries; the cost of courts; the whole expenditure of the Washington aqueduct; all appropriations for bridges, improvement of streets and avenues; for the Washington Canal and filling up of the same, the jail and court-house at Alexandria, the city-hall in Washington, Freedmen's Hospital, and numerous other purposes. The only expenditure for public institutions not included, in which the people of the District have any interest, is the hospital for the insane, and the reason for this omission is, that the District has paid for the maintenance of its patients.

A statement of the amount of tax assessed upon property in Washington from the year 1800 to 1876 has been prepared by the officers of the District, as follows:

Aggregate amount as reported	\$32,007,275 70
Add collections for licenses, rents, &c	4,078,626 12
Add water department rents	626,838 92
Add expenditures by Georgetown	3,500,000 00
Add expenditures by county	2,000,000 00
Add expenditures by Alexandria prior to 1846, date of retrocession to Virginia	1,250,000 00
Add outstanding District funded debt	8,363,400 00
Add outstanding 3.65 bonds	13,743,250 00

Total expended by the people of the District

65,569,370 74

Deducting the amount of the bonded debt above stated from \$65,569,370.74, there still remains an absolute *paid-up expenditure*, as follows:

By the people of the District of	\$43,462,720 74
Expended by the United States	27,311,950 00

If an equal division of the expenditures for the local government between the United States and the District of Columbia is a just one, as is

now admitted, then the United States is in equity a debtor to the District of Columbia as above shown.

Our purpose in displaying these figures is to invite attention to the claim the District now has to be assisted by the general government, and to urge this claim upon the attention of Congress in connection with the plan of relief from the burden of public debt which we present here, as well as to the need for an advance of money to put the cities of the District in proper order. The debt once placed upon the footing referred to, the streets repaired, and sewers enlarged as contemplated in the estimates submitted, the proportionate yearly appropriation by the United States would be thereafter diminished.

THE DEBT.

The burden of the public debt weighs heavily. Payment of interest alone absorbs about one-third of receipts from all sources, including the 50 per centum contributed by the United States. To this sum must be added a large amount for sinking fund to pay the principal. Thus more than one-third of the revenue of the District, year after year, goes to the public debt as now funded. Three hundred and forty thousand dollars per annum are required to pay off the District debt within the time of the maturity of the larger portion, and a further sum of \$100,000 per annum to pay off the 3.65 bonds, payable more than forty-six years hence; in all, a payment of \$440,000 per year on the sinking-fund account. It is not practicable, in view of other current requirements, to set apart such an amount from the present revenues. Renewal of bonds must therefore follow when those outstanding mature.

The 3.65 bonds form nearly two-thirds of the indebtedness for which the District revenues are made to provide. These are obligations of the United States.

The act of June 11, 1878, commits the United States to the payment of 50 per centum of the expenses of the District government. Interest and sinking fund for the 3.65 bonds and the funded indebtedness of the District form a large part of the expenses. Any measure that relieves the District of a portion of the burden of this debt relieves the United States to the same extent. This consideration has led us to submit herewith a plan of relief, which lessens the yearly requirement on account of the debt, while securing its extinguishment within a fixed period, and in no way adds to the responsibility of the United States. This plan contemplates a loan by the United States to the District of fifty-year 4 per centum bonds, to be used in refunding all said outstanding indebtedness, the District securities taken in the exchange to be held as collateral by the United States until this special issue to the District shall have been redeemed and canceled, as proposed herein. These securities, held as collateral by the United States, would exceed in amount the bonds so loaned to the District. It is proper to add that the power of Congress being absolute in the District, it can fully protect the national interest in any measure adopted.

The present debt of the District is	\$8,363,400 00
Deduct water-stock bonds included in the above, and paid from a special fund	423,000 00
District debt proper	7,940,400 00
Add all outstanding 3.65 bonds	13,743,250 00
Total debt proposed to be funded in United States 4 per cent. bonds...	<u>21,683,650 00</u>

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District debt payable at pleasure	\$993,900 00
District debt due January 1, 1879	279,000 00
District debt due March 1, 1879	2,500 00
Total payable as above	1,275,400 00
District debt due at future dates	6,665,000 00
Add 5 per cent. premium for purchase of said bonds not yet due, which are now at a premium of 2 to 3 per cent	333,250 00
Total 4 per cent. United States bonds estimated to fund District debt proper	8,273,650 00
Annual interest on present District debt	484,529 80
Annual interest on estimated 4 per cents to fund said debt	330,946 00
Interest annually saved by proposed funding said debt	153,583 80
Total outstanding 3.65 bonds	13,743,250 00
Amount of 4 per cent. bonds to fund the same at 87 cents, assumed as the maximum value of said bonds	11,956,627 50
Saving in principal of said debt, to be paid at maturity by funding as proposed	1,786,622 50
Annual interest now paid on 3.65 bonds	501,628 62
Annual interest on 4 per cent. bonds estimated to fund the same at 87 cents	478,265 10
Annual interest saved by funding said 3.65 bonds, as proposed	23,363 52
Annual interest saved on District debt proper	153,583 80
Annual interest saved on 3.65 bonds	23,363 52
Annual interest saved on total debt	176,947 32

Recapitulation.

Total of securities now outstanding, to be funded as above proposed ..	\$21,683,630 00
Amount of 4 per cent. bonds estimated to fund District debt proper	\$8,273,650 00
Amount of 4 per cent. bonds estimated to fund the 3.65 bonds	11,956,627 50
Total amount of 4 per cent. bonds to fund both said debts, as proposed ..	20,230,277 50
Total saving in principal of these two classes of bonds finally to be paid	1,453,372 50
Annual interest now paid on District debt proper	484,529 80
Annual interest now paid on 3.65 bonds	501,628 62
Total annual interest now paid	986,158 42
Annual interest on the 4 per cent. bonds estimated to fund said debt as proposed	809,211 10
Total annual saving of interest on the above basis of estimate	176,947 32

The sum of \$127,410, yearly invested in these 4 per centum bonds at par, will pay off the total amount of the proposed issue, viz, \$20,230,277.50, in fifty years.

Thus it appears that by funding the debt as proposed there will be a saving of principal to be paid at maturity amounting to \$1,453,372.50; and in payment of annual interest, a saving of \$176,947.32. This saving of interest invested yearly in the 4 per cent. bonds at par would pay off the entire debt in forty-four years. Larger premiums may have to be paid in funding some of the District debt than is assumed in the foregoing estimate, and the 4 per cent. bonds purchased may also be at a

premium in the market before maturity. But, in any event, it may be confidently and safely asserted that the entire existing indebtedness of \$21,683,650, principal and interest, can be paid off in the time and manner here suggested, by the annual appropriation to that purpose of the amount *now paid* for interest alone, viz, \$986,158.42 per annum.

The relief arising from such a disposition of this burden would reach all classes, and the gain to the revenues of the District would amount in a few years to millions of dollars. The apportionment otherwise going to the sinking fund would then be available for repairing streets, construction of sewers, and other necessary public works; and the saving thus effected would be converted to permanent benefits to the United States and the District of Columbia.

The first suggestion in connection with refunding the District debt was a further issue of the 3.65 bonds, to fund the entire debt in bonds of that class, made available, however, for all the purposes for which the 4 per cent. United States bonds can be used, and enjoying like immunity from all dues. A 3.65 bond of this character would now be worth 91.25, plus the increased value due to approach to maturity, and could be used at about that rate in the exchange for District bonds. The annual interest upon the whole required to fund the District debt would be the same as if 4 per cent. bonds were used. The statement then would be:

District debt to be funded	\$7,940,400
Five per cent. premium, as before, on part not payable	333,250
Total	\$8,273,650

This amount, funded at 91½, would become \$9,067,013.69, and the interest, at 3.65, would be \$330,946, or the same as computed for the 4 per cent. bonds.

The amount for final payment would be:

3.65 bonds to fund old debt	\$9,067,013 69
3.65 bonds now outstanding	13,743,250 00
Total to be paid at maturity	22,810,263 69
Total estimated for funding in 4 per cents.	20,230,277 50

Excess in payment of 3.65's at maturity as compared with estimate for 4 per cent. bonds	2,579,986 19
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Interest payable on 3.65 bonds to refund District debt	330,946 00
Interest now paid on outstanding 3.65 bonds	501,628 62

Total interest	\$832,574 62
Estimated interest if 4 per cent. bonds were used	\$09,211 10

Annual loss in interest by using 3.65 bonds	23,363 52
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Thus there would be a loss in final payment of \$2,579,986.19, and in yearly interest of \$23,363.52. This loss in interest, annually invested in 4 per cent. bonds at par as a sinking fund, would amount in fifty years to over \$3,700,000. In other words, the additional cost of funding the debt in 3.65's would be \$2,579,986 + \$3,700,000, or a total of \$6,279,986.19. For these reasons we abandon that idea.

The act approved June 20, 1878, making appropriation for sundry civil expenses of the government, contained a provision authorizing us to issue bonds to redeem indebtedness falling due January 1 and March 1, 1879. As engrossed, the rate of interest was left blank; but the bill passed Congress limiting the rate to 5 per cent. Our inquiries led us to believe that 5 per cent. bonds of the District, issued in accordance with

the provisions of the act, could not be sold at par, and we ventured to delay action, to ask further legislation by Congress. In the mean time, and until further provision be made, we ask that authority be given to the Secretary of the Treasury to pay these bonds at maturity upon our requisition.

By an act of Congress approved June 19, 1878, the Commissioners were directed to revise unpaid assessments for special improvements. The work has been pushed forward with all practicable dispatch. Its completion has been materially retarded by the sudden death of Mr. B. Oertly, the late able computing engineer, who was in charge of it.

SECRETARY.

The secretary to the Commissioners, in his report, states the orders made by the Commissioners from the 31st of October, 1877, to the 30th of June, 1878.

AUDITOR AND COMPTROLLER.

The report of the auditor and comptroller exhibits the transactions of his office from the 1st of November, 1877, to the 30th of June, 1878, inclusive of both dates, from which it appears the revenues of the District for said period were (including balance on hand November 1, 1877, \$87,426.22) \$1, 654, 302 75
And the expenditures for same period 1, 594, 158 38

Leaving a balance on hand subject to check on the 1st day of July, 1878, of 60, 144 37

SINKING FUND.

The sinking-fund commissioner reports the sum necessary to pay to the sinking-fund the amount required by law for the District debt proper, and the amount necessary to pay off the 3.65 bonds at maturity, which amount is not fixed by law—the whole amounting to \$271,221.25. This sum, together with the interest, makes about 38 per cent. of the entire estimated revenues for the year.

This amount we consider too large to be deducted from them under existing circumstances, and suggest that not more than \$200,000 be appropriated annually for the present to that fund, say \$130,000 to be applied to the District debt and \$70,000 to the 3.65 bonds.

COLLECTOR OF TAXES.

The collector makes a detailed report of the receipts of his office and transfer of stock of the late corporations of Washington and Georgetown. The former Commissioners, recognizing the necessity for a delinquent tax-book, none ever having been kept by any of the other governments of the District, entered into a contract with experts for the preparation of one that should embrace all the unpaid taxes as far back as 1860. The collector reports this as being in rapid progress toward completion. He refers to the arrearages of tax upon which penalties, interest, and other costs have accrued to such a degree as to render efforts to enforce collection for the most part futile, and recommends that the privilege be granted to pay these taxes free of penalty and with 6 per centum interest per annum from the time they were due and payable, if paid within six months from and after the passage of a law

granting such privilege. Between \$4,000 and \$5,000 would have to be paid from the District treasury to holders of tax-lien certificates on account of the difference between 6 per cent. interest and the rate of interest the certificates bear. The loss in interest and penalties would make up a further sum, estimated to be nearly \$100,000. We commend this suggestion of the collector to the consideration of Congress, and recommend the passage of such a measure, to include all taxes delinquent prior to June 30, 1877. Those delinquent June 30, 1878, have already enjoyed the privilege of paying in this manner.

In the same connection we deem it proper to suggest a similar legislation for the unpaid special assessments, granting the privilege within a like period to pay the corrected amount, with 6 per cent. interest from the date of the assessment.

The collector reports his collections from November 1, 1877, to June 30, 1878, inclusive, to have been \$1,488,237.04.

SUPERINTENDENT OF ASSESSMENTS AND TAXES.

The superintendent of assessments reports the assessed value of real property in the District for the fiscal year ending June 30, 1879, as follows, viz:

Washington City.....	\$75,555,801
Georgetown.....	5,242,224
County.....	6,693,417
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	\$87,491,442

The assessed value for the year ending June 30, 1878, was:

Washington City.....	\$83,101,484
Georgetown.....	6,028,041
County.....	8,480,365
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	97,609,890

Added for improvements made:

Washington City.....	\$1,224,950
Georgetown.....	41,900
County.....	60,960
	<hr/>
	1,327,810
	<hr/>
	98,937,700

Showing the reduction arising from the reassessment of real property to be—

Washington City.....	8,770,633
Georgetown.....	827,717
County.....	1,847,908
	<hr/>
Total.....	11,446,258

He reports the personal assessment not completed, the amount assessed at date of his report being \$9,639,332.

ASSESSORS.

The assessors report having completed a valuation of all taxable property in the District, made in accordance with the act of Congress approved April 3, 1878; also the completion of the census required to be taken by the same act. The returns of personal property at the date of their report amount to \$9,754,321. The assessors are now engaged in assessing those who failed to report their personal property.

A resurvey of portions of Georgetown became necessary, in order to enable them to make a correct assessment and to prepare a numerical and plat-book for that city. They recommend the abolition of tax on merchandise held for sale and the substitution of an annual license tax. We commend their statement in reference to this matter to the attention of Congress. They also recommend the abolition of tax on stocks and securities of the District of Columbia, and give their reasons therefor. The census shows a total population of 160,051 persons, of whom 53,624 are colored and 15,261 are foreign born. This does not accurately represent the annual number of residents, since many officials of the United States decline to be included in the census of the District because included in that of their proper places of citizenship.

The number of children between the ages of six and seventeen years, inclusive—i. e., the school age—amount to 38,800, of whom 12,374 are colored.

INSPECTOR OF BUILDINGS.

The inspector of buildings reports having issued one thousand and one permits for the erection and alteration of buildings, at a stated cost of \$1,125,763; and gives the number of buildings in the cities of Washington and Georgetown as 27,563, exclusive of those owned by the United States.

FIRE DEPARTMENT.

The board of fire commissioners report interesting details of the transactions of the fire department, and recommend that provisions be made for disabled firemen. They urge the propriety of an appropriation of one thousand dollars for the entertainment of the delegates to a firemen's convention to be held in this city in September, 1879. The efficiency of this department is well appreciated by the General Government and the people of the District of Columbia.

Two new buildings are in process of erection for the accommodation of the two hook and ladder companies, and a former hook and ladder company's premises will be fitted for use of an engine company. Two new engines and one hook and ladder apparatus have been ordered.

ATTORNEY.

The attorney for the District gives a synopsis of the cases pending in the courts of the District. He recommends a change in the statute of March 3, 1877, relating to the final sale of property to satisfy delinquent tax. He estimates that to execute the provisions of the present statute would require the institution of 3,000 suits and an advance for costs of from \$30,000 to \$40,000; a large increase of the clerical force of the courts would become necessary, and the final result would be sweeping ruin to many property-holders in the District.

He also recommends, as does the collector, that owners of property be permitted to pay the original tax, with 6 per cent. interest, free from all penalties and forfeitures.

He reports 51 cases tried in the criminal court; 3,739 cases tried in the police court; and the commencement of 37 new civil cases for and against the District; and that 370 cases are now pending in the various courts of the District.

He reports that a draught of a bill intended to cover the whole field of municipal law of the District, made in obedience to the law of June 11, 1878, is in satisfactory progress, and he expects to have it ready to present to Congress immediately after the holidays.

He makes certain recommendations in reference to his office, to which we invite the attention of Congress.

CORONER.

The coroner reports the number of deaths certified by him from October 1, 1877, to June 30, 1878, and makes several recommendations; among them, one relating to coroner's juries, and suggesting that six citizens be made to constitute a legal jury of inquest. This recommendation merits the attention of Congress as a measure of economy.

HEALTH OFFICER.

The health officer, in his report, systematically reviews the general measures adopted and pursued by the health department of the District since its establishment, and refers to the reorganization of the department under his own supervision, pursuant to the act of June 11, 1878, by which the board of health was abolished, and under which he was appointed on the 9th of July last. He submits some valuable recommendations, suggested by a general and professional knowledge of sanitary concerns, and confirmed by his experience as health officer. He makes important comments on the subject of the ventilation and other sanitary requirements of our public-school buildings; urges the immediate necessity for the improvement of the malarial flats on the river front; refers to the yellow-fever epidemic prevailing in parts of the country last summer, and the energetic measures taken to prevent its introduction and development here; and discusses numerous other matters within his official purview in a manner indicating an intelligent conception of the requirements of his responsible position.

TREASURER.

The treasurer reports the receipts of the District from November 1, 1877, to June 30, 1878, to have been \$1,566,876.53. Of this amount, there were collected for licenses \$88,163.53.

He makes a suggestion that a policeman shall be employed as inspector of licenses, which we have deemed of much practical value, and directed that an officer be assigned to that duty.

POLICE.

The act of Congress making appropriations for sundry civil expenses of the government, approved June 20, 1878, authorized the Commissioners of the District to fix the salaries to be paid the officers and privates of the police force. Congress, for the two previous years, had itself limited the expenditures for that department to \$300,000; a sum not sufficient to maintain at the former rate of pay the full number of two hundred privates authorized by law—a force too small to perform properly the police service of the District. We concluded to so regulate the salaries as to admit maintaining the full complement of men and of improving the efficiency of the force by increasing the number of mounted men to one-fourth the entire number of privates, and yet confine the expenditure within the Congressional limit of \$300,000. To accomplish these results we reduced materially the pay of the new members, and graduated the pay of those older in the service in such manner that the oldest members enjoy the pay they received before.

The rates now paid are as follows :

	Per month.	Formerly.
Major and superintendent	\$210 00	\$210 00
Captain and inspector	150 00	150 00
Detectives	110 00	135 00
Lieutenants	100 00	105 00
Sergeants	95 00	97 50
Station-keepers	43 00	43 00
Police surgeons	37 50	37 50
Privates for the first year of service	70 00	90 00
Privates for the second, third, fourth, and fifth years	79 00	90 00
Privates for the sixth, seventh, eighth, ninth, and tenth years	83 00	90 00
Privates for the eleventh, twelfth, thirteenth, fourteenth, and fifteenth years	88 00	90 00
All over fifteen years	90 00	90 00

One messenger is provided for at \$75 and one at \$30, and laborers at \$35 per month.

The major of police, in his report, which we herewith transmit, recommends an increase of the police force; the erection, by the District, of station-houses to be used in lieu of those now rented at a large expense; the making of provision for members of the force who, through the vicissitudes of the service or age, are unfitted for duty; and submits other valuable suggestions on matters directly and indirectly connected with the branch of the service under his superintendence; all of which we commend to the attention of Congress.

POLICE COURT.

The judge of the police court, in submitting his estimates, refers as follows to the transfer of his court to the building it now occupies: "The removal of the court from the building formerly occupied, long felt by every one to be a nuisance, to the present comfortable and healthful quarters, is a source of gratification to all—officers, attorneys, and citizens. I am glad to avail myself of this opportunity, in behalf of myself, the officers of the court, and all who do business there, to convey to you our appreciation of the efforts you have made in securing for us a suitable building."

PUBLIC SCHOOLS.

We invite the careful attention of the President and of Congress to the condition of the public schools of this District, as exhibited in the reports of the board of trustees and of the health officer. While the number of pupils is augmenting yearly at the rate of 8 per cent., there is no permanent provision for a corresponding increase of school room; and the current resources of the District are overburdened to supply the means necessary for the support of the schools; so much so, that we feel constrained to limit our estimate on this account for the year ending 30th June, 1879, to a sum considerably less than is estimated by the school board. In this connection we beg leave to quote here a statement of facts presented in a memorial of representative citizens of the District to Congress at its last session:

Official reports show that while the rate of taxation in this District for the support of public schools is nearly double that in most of the large cities of the Union, the means of education are wholly inadequate to the wants of our population. We have expended for this object, in the last six years, nearly \$2,400,000. * * * While all the Territories and most of the States of the Union have received from Congress magnificent grants of the public lands in aid of education, not an acre has been granted to the District of Columbia, the nation's capital, and the appropriations of money by Congress for this object are insignificant.

This injustice to the District seems the greater when we consider the fact that one-third of our school revenue is devoted to the education of colored children, invited here from the surrounding States by recent action of Congress, and whose parents, as a rule, pay no taxes; and that thirty per cent. of the white pupils in our schools are the children of persons connected with the public service, and who, for the most part, are mere sojourners and non-taxpayers. Thus, while the States furnish 60 per cent. of the beneficiaries of our schools, they throw the entire burden of their support on the 40 per cent. of tax-paying citizens.

We concur fully in this statement. Nothing comparatively has been done by Congress for the cause of education at its own capital, and our schools have no endowment fund either of land or money. Of the 354 school-rooms now used, 117, or about one-third, are *rented* at an annual cost of about \$30,000; and, as reported by the health officer, these rented rooms are, for the most part, wholly unsuited for the purpose, and menacing to the health of the pupils. The great want of our schools at present is additional and suitable school accommodations. For the supply of this imperative need they must look to Congress alone; for with the oppressive debt which now burdens the taxpayers of this District, and the present overwhelming demand on its revenues for street and sewer improvements, this want can be met in no other way.

In view of these facts, the board of school trustees, selected from the body of our citizens, for their worth and intelligence, and who gratuitously devote themselves to this all-important interest, appeal for aid to Congress.

They ask that the Commissioners may be authorized to appropriate to the use of the public schools certain lots in square 446, purchased by the District for a market; and that Congress will grant, for the same uses, certain other eligible lots in square 158, owned by the United States, together with an appropriation of money sufficient to place the District of Columbia on an equal footing, in this respect, with the States and Territories whose schools and colleges are already richly endowed by the bounty of Congress. The Commissioners feel that this request is just and reasonable, and cannot therefore refuse to commend it to the favorable consideration of Congress. It is generally admitted that in dealing with social and moral problems, no less than physical, true economy points to preventive, rather than remedial, measures as the best reliance for permanent and beneficial results. We know of no agency of such pervading and radical influence on the varied interests of society as popular education; the basis of all national progress, material, political, and moral. The people of the United States have a right to look to their capital for the development of the highest forms of intelligence and virtue, and to their representatives here for the creation and maintenance of the most perfect and efficient agencies for this development. The Constitution has invested Congress with ample power for this purpose within the limits of this District, and the work has already been initiated by the establishment of a Bureau of Education, which only needs to be developed into broader and more practical application to secure results, both local and national, of the greatest value. And as, under the Constitution, the wants and interests of this District are committed to the special and exclusive jurisdiction and care of Congress, it seems eminently just and wise that public education in the District should be generously fostered by Federal legislation.

WASHINGTON ASYLUM.

The institution known as the Washington Asylum embraces an almshouse, free hospital, and workhouse. Heretofore a portion of the

almshouse has been used for the confinement of petty offenders, convicted and sentenced by the police court, thus degrading the honest poor by immediate and constrained contact with criminals. This injustice is about to end by the transfer of all such convicts to the new workhouse, constructed at a cost of about \$22,000, which will be ready for occupancy about 1st February, and will accommodate about 100 inmates. Additional room, however, will still be needed. This asylum, combining the features of local charity and correction, is of great social interest and importance to the people of this District. Involving, as it does, a necessary burden on their property, it is our duty to make the institution as far as practicable self-sustaining. This, we believe, can be accomplished in a much larger measure than is the case at present, by utilizing the pauper and criminal labor at our disposal in the cultivation of land; thus furnishing to this unfortunate class wholesome and profitable employment without impairing the discipline of the institution. We therefore invite the earnest attention of Congress to the suggestions on this and other subjects contained in the very interesting and important report of the commissioner of the asylum, herewith transmitted. He directs especial attention to the constant menace to life and property involved in the present location of the United States magazine within the limits of the city and adjoining the grounds of the asylum. The reservation on which this magazine is now located, besides being wholly unsuited, for the reasons mentioned, for such an establishment, would be a most valuable addition to the accommodations of the asylum and of the United States jail. The improvements now on the reservation would be immediately available for workshops for the profitable employment of the skilled labor of both institutions, and furnish facilities for the acquisition of useful trades by the unskilled laborers, who would then be qualified and encouraged, when released from confinement, for a life of honest industry. Such a system of penal administration could not fail to be highly reformatory in its influence; while, at the same time, it would greatly diminish the cost of support both to the United States and the District of Columbia.

We again commend to the liberality of Congress the Industrial Home School of Georgetown. This charity, founded and chiefly sustained thus far by private benevolence, now occupies, by permission, the Georgetown almshouse, where a small number of District paupers are provided for by an arrangement between the commissioner of the Washington Asylum and the managers of the Home School. The benevolent ladies who have charge of this deserving charity have collected within the walls of this dilapidated building about fifty indigent children of both sexes, whom they are educating in various industries, and for whom they provide homes so soon as they have attained sufficient age and qualifications. The workshop connected with the institution contributes largely to its maintenance, and experience thus far has demonstrated the wisdom and beneficence of its plan.

PAVEMENTS.

The board present herewith a schedule of various improvements which have been undertaken since the date of the last report.

Although not strictly within the limit of the present report, the contracts entered into between the 1st of July and the 1st of October, 1878, have been added. Large additional contracts, amounting in the aggregate to about \$170,000, have also been given out since the latter date. The total amount of the paving contracts entered into since July 1, 1878,

is \$289,000. This sum was fixed by the Commissioners as the limit of their operations during the present season, and has been distributed uniformly through the several months, beginning with the 1st of August. In the arrangement of this work the board was at first obliged to proceed with caution, as the amount of the assessment of taxable property, and consequently the total revenues of the District for the current year, could not be ascertained. The Commissioners have also held that, by a judicious arrangement of the expenditures of the District, the actual resident laboring population may be constantly employed, and thus much suffering among the poorer classes be avoided. The expenditure of excessively large sums at any one time must, of necessity, attract to this city a large floating laboring population, which, upon the completion of the work on hand, would be left as a helpless and hopeless burden on the community at large.

In determining the class of pavements to be hereafter laid, the Commissioners have held themselves entirely aloof from all controversies among interested parties, and, without advancing any theories of their own, they maintain that each class of pavement must prove its qualities under the test of actual traffic before being extensively laid upon the streets of this city.

As the standard stone pavement, the granite block, of rather smaller dimensions than is usually used in other cities in this country, has been selected. These blocks, where subjected to heavy traffic, must be based on a firm foundation of hydraulic cement. Where the traffic is lighter, and especially where the slopes are such as to give rapid drainage, the base may be prepared with broken stone or gravel.

An example of this pavement may be found upon Seventh street northwest.

As the standard asphaltum pavement, the Commissioners have adopted a hydraulic concrete base, six inches in thickness, with a surface of 2½ inches of asphaltic composition in which no product of the distillation of coal tar is admitted.

The Neuchatel they condemn as being too slippery for practical use.

As an experimental pavement, a small distance upon E street has been laid with the compressed asphalt block.

While some of the later and better class of coal-tar pavements show good surfaces and give fair promise of a reasonable durability, yet the general condition of this class of pavement in the city is such as to lead to their condemnation as faulty in principle and deficient in vitality. The use of bituminous bases has also given rise to many perplexing problems in the grades of the streets upon which they have been used and as, when properly laid, their cost is as great if not greater than the hydraulic concrete, they have been definitely abandoned.

The Commissioners do not place an unreserved confidence in any form of asphalt pavement as yet invented. They are, however, of the opinion that with the present prices of such pavements they may be considered as luxuries not too extravagant for the public purse. They promise at least a much less cost of maintenance than any other form of smooth pavement, and they are certainly well adapted to the light and uniformly distributed traffic of this city. It will require several years more of actual trial to determine finally the precise cost of the maintenance of such pavements. Until the test of time has been put upon them it is idle to advance theories upon the subject. It is, however, assumed from the trials thus far made that the cost will be very far within that of the coal-tar pavements heretofore laid.

There still remain about 630,000 square yards of more or less rotten

wooden surface to be replaced, a schedule of which is presented with this report. The expense of repaving is estimated at \$2.25 per yard, including all costs of grading, resetting curbs, and minor items of extra work, but not including the relaying of footwalks. The total sum thus calculated exceeds by a large amount the possible surplus revenues of the District within the next two years. The aggregate is, however, presented in this report, and is included in the supplemental estimates for the year ending June 30, 1880, in order that the present condition of the streets of the city may be understood and some means of relief may, if possible, be devised.

In determining the kind of pavement to be used in each special locality, the Commissioners adopt as a general rule that purely business streets, over which a heavy traffic is passing, shall be paved with granite blocks; also all slopes of which the inclination exceeds 1 in 50; also the roadways between the curbs of the footwalks and the rails of the street-railways where the space is so narrow as to cause the surface to be cut in ruts. All streets which are not used exclusively for business purposes, and upon which the traffic is light and diffused over large surfaces, are to be paved with asphalt; suburban streets to be gravelled or macadamized. These general rules are not intended as a final and dogmatic ruling under which all new pavements are to be summarily condemned, but are intended to represent the basis upon which the present estimates of the board are made. In laying a small amount of the compressed asphaltum block, the Commissioners have been influenced by favorable reports of its durability in Philadelphia and Providence, and by the opinions of many distinguished engineers, as well as by the evident advantage which it presents over all continuous surface road coverings, in that it can readily be taken up and relaid when required by the water, gas, or sewer service of the streets. There can be little reasonable doubt of its durability under the light traffic of this city, but it is held to be the more prudent policy to accept only the proof of actual trial, and to make its extension, year by year, keep pace with this test. It is not probable that this pavement can compete in point of price with the asphaltum roadways as now laid.

SEWERS.

The unprecedented storms of the past summer have brought very prominently into view the deficiencies in the main sewerage system of the city. The necessary examinations have been made, and approximate estimates are presented of the cost of relieving the low-lying portions of the city from the floods of water poured upon them from the upper areas and the surrounding country. The two drainage basins which present the most serious difficulties are those which discharge their waters through the old course of the Tiber and the bed of the canal along B street northwest. The accumulated waters of the immense basin drained by the Tiber now pass through the single arch under the Botanical Gardens. Its capacity is entirely inadequate to perform the service required of it, and, as a result, each heavy rain-fall floods the surface to a depth of from two to three feet. A portion of the city narrowly escaped a serious disaster from the bursting of the arch in the Gardens. The lifting of that vast mass of masonry and its settlement again in place, instead of falling in a mass of ruins, choking the entire water-way and pouring upon the surface a volume of water equal to that of some navigable streams, is a source of wonder and a subject for congratulation. The condition of the low-lying grounds in the vicinity of

the Gardens and along the B-street sewer is simply intolerable. An approximate estimate for its relief is presented, amounting in the total to \$413,000. The details of the proposed intercepting sewers and their connections, with final estimates, are being rapidly prepared, and will be presented when complete. The revenues of the District will not meet this necessary expenditure, and the Commissioners are compelled to present this case as well as the replacement of the rotten pavements of the city for the favorable consideration of Congress.

WATER SUPPLY.

The subject of the water supply of the city is one which has for some time past given much cause for complaint among those living upon the high grounds. Year by year, as the city increases, the demand for a greater supply of water will become more and more imperative. The Commissioners are not at this time prepared to present a plan for remedying the present difficulty. Heretofore, as the wants of the city have demanded, new mains have been laid to the lower reservoir. It would seem that the time is near at hand when it will be necessary to take a more comprehensive view of this subject, looking to economy in the future, and to the health and comfort of an increasing population.

The resources of the water department are at present barely able to support the current expenses, and it will not be possible to lay the new mains necessary for the proper service of the present system without a slight increase in the water-rates. As under the existing laws the department is supposed to be self-supporting, any increase in the rates must of necessity be limited by the actual need of the water service.

RAILROAD STATIONS.

We feel it to be our duty to refer to the presence of the two railway depots in the city of Washington, both of which are serious obstacles to the improvement of the localities where they are established, besides being sources of unnecessary danger to the public in the streets along which the tracks pass.

The Baltimore and Ohio Railroad depot, with its tracks for approach, prevents grading the streets upon the north side in the intermediate vicinity of the Capitol grounds. Its tracks from Baltimore and to the West occupy a considerable portion of the northeastern part of the city in such a manner as to impair the value of property and impede the progress of improvements, while they cross Massachusetts avenue, practically severing the finest street in the city. It is entirely practicable to unite these two lines outside the city and bring them in upon one line of street, to a station somewhere north of Massachusetts avenue, and thus remove much of the objection to and damage arising from the location of the depot in that portion of the city.

The Baltimore and Potomac Railroad depot and tracks are equally injurious to the improvement and welfare of the part of the city they occupy. Crossing the Mall, they divide and disfigure this beautiful park, extending from the Capitol to the President's house, besides greatly injuring the streets on the south side of it on account of the circuitous manner of approach, and obstructing improvements on the south side of the Capitol. The depot of the company should be removed across the Mall and to the vicinity of reservation No. 17.

It is not to be expected that the surroundings of the Capitol can become what they ought to be while these two railway stations occupy their present sites.

HARBOR.

In our allusion to the report of the health officer of the District, we have referred to his recommendation for the improvement of the river flats and their effect upon the sanitary condition of this city. In an engineering and commercial point of view their improvement is of equal importance to the welfare of the District. We urgently recommend to Congress the adoption of some plan for the reclamation of these marshes, which would then become a valuable property of the United States, and a desirable addition to the city, instead of, as now, sources of disease, and of damage to the substantial interests of the District from their interference with the navigation of the river.

Some of the provisions of the act of 11th June, 1878, are somewhat indefinite, and have given rise to differences of opinion as to their proper construction. This is especially the case with those which are intended to regulate our relations to the Treasury Department of the United States, and which have caused us some embarrassment. We think it very desirable that said act should be so amended as to remove all occasion for conflicting constructions of this and other provisions.

Very respectfully,

S. L. PHELPS,
J. DENT,

W. J. TWINING,
Major of Engineers,
Commissioners of the District of Columbia.

A.—REPORT OF THE SECRETARY.

OFFICE OF THE COMMISSIONERS
OF THE DISTRICT OF COLUMBIA.

Washington, November 2, 1878.

GENTLEMEN: I have the honor to submit herewith copy of orders passed by the Commissioners of the District of Columbia from the 31st day of last October to the 30th day of June.

Respectfully,

WILLIAM TINDALL,
Secretary.

COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

OFFICE OF THE COMMISSIONERS
OF THE DISTRICT OF COLUMBIA.

Washington, November 14, 1877.

Ordered, That so much of section 18 of the building regulations of the District of Columbia, made January 1, 1877, as relates to sheds, is hereby temporarily suspended, and that, until such suspension shall have been revoked, the following shall be in force:

Sheds for fuel or water-closets, and for no other purpose, not to exceed 11 feet in height at the highest point thereof, 20 feet in width, and 12 feet in depth, may be erected on the rear of lots.

NOVEMBER 28, 1877.

Ordered, Pursuant to the proclamation of the President of the United States, designating Thursday, the 29th instant, for public thanksgiving, the offices of the government of the District of Columbia will be closed on that day.

DECEMBER 13, 1877.

Ordered, That the offices of the District government be closed at 12 o'clock m. to-morrow, as a mark of respect to the memory of Col. Timothy Luby, water registrar.

DECEMBER, 13, 1877.

Ordered, That the secretary to the Commissioners of the District of Columbia act as commissioner of the Washington Asylum until otherwise ordered.

DECEMBER 15, 1877.

Ordered, That hereafter the collector of taxes in and for the District of Columbia shall make collections of all moneys due for rents, taxes, permits, and every other account heretofore payable at the water registrar's office.

DECEMBER 18, 1877.

Ordered, That the auditor and comptroller, the treasurer, and the superintendent of assessments and taxes, in and for the District of Columbia, are hereby appointed a commission to examine the books, papers, and accounts of the water registrar's office, embracing the period from June 3, 1871, to the 17th instant, and report the result of their examination to this office as soon as practicable; including such recommendations as they may deem proper for making more efficient and economical that department of the public service.

DECEMBER 19, 1877.

Ordered, That the offices of the District Government be closed at 12 o'clock m. on the 24th and 31st instant.

Apportionment by the Commissioners of the District of Columbia of the revenue collectible under the tax levied for the fiscal year ending June 30, 1878.

DECEMBER 24, 1877.

In exercise of the authority and duty devolved upon us by the act of Congress approved March 3, 1877, entitled "An act for the support of the government of the District of Columbia for the fiscal year ending June 30, 1878, and for other purposes," the undersigned, Commissioners of the District of Columbia, make the following apportionment for the distribution of the revenue which shall be collected under the provisions of the act of Congress aforesaid, to wit:

Every one dollar and fifty cents collected pursuant to the tax levied

by said act of Congress for the fiscal year ending June 30, 1878, shall be distributed as follows:

For salaries and other necessary expenses of the Metropolitan police for the District of Columbia, act of Congress approved March 3, 1877, eighteen cents	18.0
For salaries and other expenses of the board of health and for salaries of the inspector and of the assistant inspector of gas, act of Congress approved March 3, 1877, two cents and two mills	2.2
For support of the boys sent to the reform school, act of Congress approved May 3, 1876, and of the indigent insane of the District of Columbia in the Government Hospital for the Insane, act of Congress approved March 3, 1877, two cents and nine mills	2.9
For the interest on the bonded debt of the District of Columbia, including bonds of the corporations of Washington and Georgetown, sixty-two cents and two mills	62.2
For sinking fund of the bonded debt of the District of Columbia, including bonds of the corporations of Washington and Georgetown (see various acts and ordinances in force), four cents and seven mills	4.7
For general fund of the District of Columbia, sixty cents	60.0
Total	\$1.50.0

JANUARY 2, 1878.

Ordered, That entertainment permits shall only be issued on written application therefor, approved by the chief of police, or by the lieutenants in charge of the police precincts in which the proposed entertainments are to be given.

JANUARY 29, 1878:

Ordered, That no person be allowed to examine or handle the books in any office in this building after office hours, unless having authority to do so from the head of such office or the District Commissioners.

FEBRUARY 11, 1878.

Ordered, That officers and employés of the District government are prohibited from ordering any article whatever from contractors or other persons for account of the District. Requisitions must be submitted to the Commissioners for all articles required in every department of the government, which, when approved, will be sent to the superintendent of property, who alone is authorized to order purchases to fill such approved requisition.

Contractors will not deliver any article whatever to the order of any person but the superintendent of property, and will not be paid for anything delivered contrary to this order.

FEBRUARY 12, 1878.

Ordered, A reward of \$200 is hereby offered for information that will lead to the arrest and conviction of the murderer of an unknown female infant found dead, with its throat cut, on or about the 9th of February, 1878, and taken to the eight precinct police station, where the coroner's inquest was held on the following day.

FEBRUARY 21, 1878.

Ordered, Pursuant to the proclamation of the President of the United States, directing the observance of the 22d instant as a public holiday,

the offices of the government of the District of Columbia will be closed on that day.

MARCH 25, 1878.

Ordered, That awnings extending to the inside line of foot pavements may be erected in front of business property on parked streets, provided no awnings so erected shall exceed fifteen feet in width.

APRIL 11, 1878.

Ordered, That henceforth employés of the District government are forbidden to assign or give powers of attorney to brokers to collect their salaries or wages; and such assignments or powers of attorney will not be recognized. On special application to the Commissioners, semi-monthly payments will be made.

APRIL 15, 1878.

Ordered, That steps projecting *twelve* feet from building-line may be constructed on all avenues and streets having a width of parking of *twenty-four* feet and upwards.

MAY 15, 1878.

Ordered, That the offices of the District government be closed at 3 o'clock p. m., to-day, in respect to the memory of the late Prof. Joseph Henry, secretary of the Smithsonian Institution.

MAY 29, 1878.

Ordered, That the offices of the District of Columbia be closed on "Decoration Day," Thursday, the 30th instant.

B.—REPORT OF THE AUDITOR AND COMPTROLLER.

AUDITOR AND COMPTROLLER'S OFFICE, D. C.,
Washington, November 1, 1878.

GENTLEMEN: I have the honor to submit the following report of the operations of this office, and of the receipts and expenditures of the District government from November 1, 1877 (the date of my last report), to the end of the fiscal year, June 30, 1878:

Revenue of the District from all sources during this period, including balance cash on hand November 1, 1877, \$1,654,302.75, received as follows:

From taxes, licenses, permits, rents, &c.....	\$1,521,876 53
From appropriation, act of Congress March 3, 1877, for the support of the fire department.....	25,000 00
From appropriation, act of Congress April 4, 1878, im- proving the grounds south of the Capitol, \$15,000, and medicines and medical attendance to the sick and in- firm poor, \$5,000.....	20,000 00
From balance cash on hand November 1, 1877.....	87,426 22
Total receipts.....	\$1,654,302 75

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Brought forward \$1,654,392 75

Expenditures during the same time, \$1,594,158.38, as follows:

For Commissioners' office	\$16,725 10
For auditor and comptroller's office	12,653 66
For attorney's office	5,278 55
For assessors' office	16,528 83
For collector's office	8,782 73
For sinking-fund office	3,691 64
For coroner's office	1,264 46
For engineer's office	24,730 70
For inspector of buildings' office	3,797 62
For superintendent of assessment and taxes' office	4,737 86
For treasurer's office	3,150 96
For water registrar's office, and water department	62,624 22
For Metropolitan police	101,834 53
For board of health	18,993 86
For public schools	268,425 23
For fire department and fire-alarm telegraph	56,352 06
For Washington Asylum	29,373 54
For Georgetown almshouse	1,093 05
For Reform School	11,618 54
For charitable institutions, transportation of paupers and conveying prisoners to the workhouse	4,804 50
For medicines, medical attendance, and food to the sick and infirm poor, act of Congress, April 4, 1878	1,677 63
For treatment of poor at the Government Hospital for the Insane	9,052 68
For police court	14,005 88
For interest on funded debt of the District of Columbia and of the late corporations of Washington and George- town	262,097 75
For interest on Linthicum loan	2,600 00
For redemption of bonds and water-stock	15,300 00
For markets, Washington and Georgetown	9,290 43
For street-lamps and gas	110,692 44
For improvements and repair	161,291 12
For erection and improvement of new workhouse	3,176 19
For employes late board of public works	5 00
For sundry expenses District offices, including rent, fuel, repairs, general advertising, judicial expenses, survey- or's fees, &c.	9,101 20
For inspector of gas and meters' office	1,000 00
For sealers of weights and measures	146 66
For harbor-master of Georgetown	80 00
For miscellaneous: printing checks on United States Treasury, repairs to hay-scales, transfers of real estate, books of register of wills, payment of damages, &c.	566 05
For redemption of tax-lien certificates, special-tax scrip, tax-sale certificates, and refunding erroneously-paid taxes, &c.	12,613 71
For refunding to the United States amount advanced by the Secretary of the Treasury to pay interest on funded debt, &c., act of March 3, 1877, less amount of \$75,000 authorized to be retained for public schools, act of April 30, 1878	325,000 00
Total expenditures	1,594,158 38
Balance cash on hand subject to check, July 1, 1878	60,144 37

The accompanying statements, marked Appendix B 1 and B 2 will show more in detail the above receipts and expenditures.

These detailed statements include the moneys collected by the collector of the District of Columbia, under the fourth section of the act of July 19, 1876, entitled "An act authorizing the repavement of Pennsylvania avenue," and paid into the Treasury as required by said act; but inasmuch as they constitute no part of the actual receipts and disburse-

ments of the District government, they are not included in the above statement either of receipts or expenditures.

The amount collected under this act remaining on hand deposited, but not covered into the Treasury, on the 1st of July, 1878, was \$998.47.

The money advanced to the Commissioners of the District by the Secretary of the Treasury, under the act of March 3, 1877, to pay interest on the funded debt, &c., was reimbursed the United States Treasury within the fiscal year ending June 30, 1878, as required by said act.

All claims arising under the late temporary commission government which were presented to this office for audit and settlement, and which on examination were found correct, were audited and paid, and the balance in the Treasury to the credit of the Commissioners on the expiration of said temporary government, on the 1st of July, 1878, was more than sufficient to meet all of their outstanding obligations.

An examination of the accounts of the treasurer of the District shows that he deposited with the Treasurer of the United States, as required by law, all money received by him officially and has faithfully accounted for the same.

I respectfully suggest that the attention of Congress be again called to the necessity of providing some means of payment of the outstanding certificates of the board of audit, and of claims of like character and validity for which certificates were not issued by said board, by reason of its discontinuance, amounting to \$1,035,242.03; and also for the examination for audit and settlement of those claims which were either presented to the board of audit and were not acted on by them, or being authorized by the sixth section of the act of June 20, 1874, to be presented to said board, were not presented within the time required by said act. An early settlement and payment of these claims will afford great relief to this community.

I recommend that authority be asked of Congress to refund the license taxes paid on carts, wagons, and drays for the year commencing July 1, 1876, to the parties who paid them; Congress by the act of July 12, 1876, entitled "An act for the support of the government of the District of Columbia for the fiscal year ending June 30, 1877, and for other purposes," having repealed the law imposing said taxes. Most of the owners of carts, wagons, and drays had not paid their licenses at the time of the repeal of the law, and thus escaped their payment, and it is but just that those who had promptly paid should have the amount refunded them. It will require about \$4,000 to refund these licenses.

By the act of the legislative assembly approved June 25, 1873, the collector of taxes of the District of Columbia was required, on or about the 1st day of July, 1873, to issue, and did issue, certificates of all taxes on real estate which were then unpaid and in arrears, in which said certificates was set forth the amount of taxes in arrears, the number of the square and lot, in whose name assessed, and that the amount bears interest at the rate of ten per cent. per annum. These certificates were by said act made payable to the order of the comptroller of the District, and constituted and declared a preferred lien on the said properties for the amount thereof, and the governor of the District was authorized to anticipate the collection of the taxes represented in said certificates by sale of the same or by a temporary loan based upon them. By virtue of this power many of these certificates were sold, and the money received therefrom paid into the treasury of the District, and others of them were paid out as money in satisfaction of legal claims against the District. The owners of these certificates had the privilege to demand in writing, by indorsement thereon, of the collector an enforcement of

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the payment of the lien after the expiration of one year from their date, and it was made the duty of the collector by said act to comply with the demand by selling the property against which the certificates were issued. The collector of the District has been called on by the owners of some of these certificates to enforce the payment of the lien as required by said act, and has been unable to comply with their demand, because, on examination, he found the taxes had either been paid, or the property was exempt from taxation by the laws of the District at the time the certificates were issued. The District of Columbia having received from the owners of said certificates their value in money or its equivalent, under a pledge that the taxes were due, that the certificates were a lien on the property against which they were issued, and would be enforced on application to the collector, ought, in justice and fair dealing, now when it is discovered that said certificates were erroneously issued, and the supposed lien cannot be enforced, to pay to their owners the amount of the said erroneously issued certificates. I therefore recommend that some provision by law be made for their payment.

The number of audits made from November 1, 1877, to June 30, 1878, is 2,974; and of warrants drawn in payment of said claims, 11,533.

The estimated expenses of this office for the fiscal year ending June 30, 1879, are \$19,500, as will appear in detail by reference to Appendix B 3, accompanying.

Very respectfully submitted.

JOHN T. VINSON,

Auditor and Comptroller District Columbia.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

APPENDIX B 1.

Statement by the auditor and comptroller of the receipts of the District of Columbia, as reported by the treasurer, from November 1, 1877, to June 30, 1878.

From whom and on what account received.	Detail.	Total.	Aggregate.
John F. Cook, collector, general receipts.....	\$1,290,534 58		
John F. Cook, collector, license-tax.....	88,163 64		
John F. Cook, collector, water rents and tax.....	96,961 33		
T. Labey, water registrar, water rents and tax.....		\$1,484,659 55	
Northern Market.....	4,217 00	1,791 01	
Eastern Market.....	1,974 87		
Northeastern Market.....	46 00		
Western Market.....	3,742 42		
Western Market (note account).....	2,179 66		
Georgetown Market.....	1,128 88		
Fines police court.....		13,288 83	
Washington Market Company, franchise rental (poor fund).....		10,745 47	
Interest on bonds belonging to Washington school fund.....		3,750 00	
Sale of lot 1, square 39, belonging to Washington school fund.....		1,811 54	
Linthicum Institute and Peabody Library Association (fuel).....		663 73	
Refunded on account of transportation of paupers.....		140 13	
Refunded on account of erroneous payment for photograph.....		43 72	
Refunded by commissioners of sinking-fund on account of 8 per cent. water certificates.....		7 00	
Building-permit fees received by inspector of buildings.....		656 69	
Permits to produce-dealers in lien of licenses.....		2,008 00	
Forfeiture of license.....		1,650 00	
Street excavations, payments by sundry persons.....		6 25	
Sale of old material (fire department, &c.).....		50 00	
Sale of old material (Washington Asylum).....	213 10		
Rent of streets, Georgetown Town-house, &c.....	59 41	272 51	
Total amount received from taxes and revenue.....		332 10	
			\$1,521,876

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Statement by the auditor and comptroller of the receipts, &c.—Continued.

From whom and on what account received.	Detail.	Total.	Aggregate.
Repaving Pennsylvania avenue, special deposit with collector District of Columbia, act Congress July 19, 1876.			\$3, 677 49
From Congressional appropriations:			
Act of March 3, 1877, support of the fire department, year ending June 30, 1878.	\$25, 000 00		
Act of April 4, 1878, for employment and medicines, &c., for the poor of the District.	20, 000 00		45, 000 00
Grand total of receipts as reported by treasurer			1, 570, 554 02

JOHN T. VINSON,
Auditor and Comptroller District of Columbia.

AUDITOR AND COMPTROLLER'S OFFICE,
DISTRICT OF COLUMBIA,
Washington, October 23, 1878.

APPENDIX B 2.

Statement showing the amount expended on account of the government of the District of Columbia from November 1, 1877 (the date of last report), to June 30, 1878, a period of eight months.

Title of account.	Detail.	Total.	Aggregate.	Grand aggregate.
DISTRICT OFFICES.				
Commissioners' office:				
Compensation of Commissioners	\$10, 000 02			
Compensation of employes	4, 581 00			
Contingent expenses	2, 144 08			
Total for Commissioners' office		\$16, 725 10		
Auditor and comptroller's office:				
Compensation of employes	12, 337 02			
Contingent expenses	316 64		12, 653 66	
Total for auditor and comptroller's office				
Attorney's office:				
Compensation of employes	4, 674 65			
Contingent expenses	603 90			
Total for attorney's office		5, 278 55		
Board of assessors' office:				
Compensation of employes	15, 963 49			
Contingent expenses	532 96			
Advertising for	32 38			
Total for board of assessors' office		16, 528 83		
Collector's office:				
Compensation of employes	7, 173 74			
Contingent expenses	1, 608 99			
Total for collector's office		8, 782 73		
Commissioners of the sinking fund office:				
Compensation of employes	2, 266 64			
Contingent expenses	1, 000 00			
Rent of office	425 00			
Total for commissioners sinking-fund office		3, 691 64		
Coroner's office:				
Compensation of coroner	1, 200 00			
Contingent expenses	64 46			
Total for coroner's office		1, 264 46		
Engineer's office:				
Compensation of employes	21, 966 58			
Contingent expenses	2, 613 12			
Advertising for	150 50			
Total for engineer's office		24, 730 20		
Inspector of buildings' office:				
Compensation of employes	3, 743 33			
Contingent expenses	54 29			
Total for inspector of buildings' office		3, 797 62		

26 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Statement showing the amount expended, &c.—Continued.

Title of account.	Detail.	Total.	Aggregate.	Grand aggregate.
DISTRICT OFFICES—Continued.				
Superintendent of assessments and taxes' office:				
Compensation of employes	\$3,901 52			
Contingent expenses	836 34			
Total for superintendent of assessments, &c		\$4,737 86		
Treasurer's office:				
Compensation of employes	3,000 00			
Contingent expenses	150 96			
Total for treasurer's office		3,150 96		
Sundries:				
Compensation of inspector of gas and meters, and assistant	1,000 00			
Compensation of scaler of weights and measures	146 66			
Compensation of harbor-master	80 00			
Books for register of wills' office	20 00			
Fuel for District office	92 40			
Ice for District office	94 09			
Gas for District office	508 97			
Repairs for District office	1,109 73			
Rent of District office	4,000 00			
General advertising	431 00			
Judicial expenses	1,303 51			
Total for sundries		8,786 36		
Aggregate for District offices			\$110,127 97	
WATER DEPARTMENT.				
Water-registrar's office:				
Compensation of employes	5,056 77			
Contingent expenses	1,272 28			
Advertising for	115 82			
Total for water-registrar's office		6,444 87		
Water department:				
Compensation of inspectors, laborers, &c	33,427 43			
Contingent expenses	22,563 32			
Refunding erroneously paid rents, &c	188 60			
Total for water department		56,179 35		
Aggregate for water department, &c			62,624 22	
METROPOLITAN POLICE.				
Pay and other expenses	97,100 87			
Fuel for station-houses	727 10			
Rent of station-houses	3,920 00			
Repairs to station-houses	86 56			
Aggregate for Metropolitan police			101,834 53	
BOARD OF HEALTH.				
Sanitary expenses	11,129 86			
Collecting and removing garbage	7,864 00			
Aggregate for board of health			18,993 86	
PUBLIC SCHOOLS OF THE DISTRICT.				
Washington schools:				
Compensation of superintendent, teachers, and janitors	114,455 17			
Contingent expenses	8,486 81			
Fuel	1,495 96			
Repairs to buildings	5,656 42			
Furniture for	4,568 80			
Insurance on buildings, &c	100 00			
Rent of buildings	14,061 36			
Erection of	1,592 00			
Total for Washington schools		150,416 52		
Georgetown schools:				
Compensation of superintendent, teachers, and janitors	13,093 55			
Contingent expenses	890 82			
Fuel	100 20			
Repairs to buildings	196 77			
Insurance	155 00			
Furniture	296 00			
Total for Georgetown schools		14,732 34		

REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 27

Statement showing the amount expended, &c.—Continued.

Title of account.	Detail.	Total.	Aggregate.	Grand aggregate.
PUBLIC SCHOOLS OF THE DISTRICT—Continued.				
County schools:				
Compensation of superintendent, teachers, and janitors	\$24,582 97			
Contingent expenses	2,211 54			
Repairs to buildings	1,201 35			
Rent of buildings	375 00			
Insurance	12 75			
Fuel	146 38			
Furniture	926 25			
Total for county schools		\$29,456 24		
Colored schools:				
Compensation of superintendent, teachers, and janitors	61,887 46			
Contingent expenses	5,787 02			
Fuel	583 38			
Furniture	3,214 37			
Insurance	390 00			
Rent	1,710 00			
Erection of John F. Cook building	247 90			
Total for colored schools		73,820 13		
Aggregate for schools			\$268,425 23	
FIRE DEPARTMENT AND ALARM.				
Department:				
Compensation of members, &c.	36,733 78			
Contingent expenses	11,883 72			
Repairs to engine-houses	2,292 05			
Fuel	556 06			
Purchase of horses	1,075 00			
Total for department		52,540 61		
Alarm:				
Compensation of employes	2,660 83			
Contingent expenses	1,150 62			
Total for alarm		3,811 45		
Aggregate for department, &c.			56,352 06	
CHARITIES AND CORRECTIONS.				
Washington Asylum:				
Compensation of employes	6,955 50			
Contingent expenses	22,161 51			
Fuel	256 53			
Total for Washington Asylum		29,373 54		
Police court:				
Compensation of employes	6,564 99			
Contingent expenses	642 73			
Rent of building	1,741 66			
Marshal's fees	1,350 50			
Remodeling building corner Sixth and D streets	3,706 00			
Total for police court		14,005 88		
Support of paupers at Georgetown almshouse ..	1,093 05			
Sundries:				
Treatment of insane poor at government hospital	9,052 68			
Transportation of paupers	1,079 50			
Payments to charitable institutions	3,700 00			
Support of inmates of reform school	11,618 54			
Conveying prisoners to workhouse	25 00			
Medicines and medical attendance to poor, net of Congress April 4, 1878	1,677 63			
Total for almshouse and sundries		28,246 40		
Aggregate for charities, &c.			71,625 82	
INTEREST AND REDEMPTION.				
Interest on District bonds	217,442 38			
Interest on bonds of the late corporation of Washington	36,970 50			
Interest on bonds of the late corporation of Georgetown	7,684 87			
Total interest		262,097 75		

28 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Statement showing the amount expended, &c.—Continued.

Title of account.	Date.	Total.	Aggregate.	Grand aggregate.
INTEREST AND REDEMPTION—Continued.				
Redemption of Emery 7 $\frac{1}{2}$ % certificates		\$300 00		
Redemption of water stock, District of Columbia		15,000 00		
Total redemption		\$15,300 00		
Aggregate interest and redemption			\$277,397 75	
MARKETS.				
Eastern market:				
Compensation of market-master		1,195 59		
Contingent expenses		413 49		
Total for Eastern market			1,609 08	
Northern market:				
Compensation of market-master		1,319 57		
Contingent expenses		888 59		
Total for Northern market			2,208 16	
Western market:				
Compensation of market-master		752 30		
Contingent expenses		471 85		
Total for Western market			1,224 15	
Georgetown market:				
Compensation of market-master		778 13		
Contingent expenses		259 38		
Total for Georgetown market			1,037 51	
Sundries:				
Rent of Northeastern market site		764 71		
Erection of new Western market		2,446 82		
Total for sundries			3,211 53	
Aggregate for markets			9,290 43	
STREET-LAMPS AND GAS.				
Washington:				
Lighting, extinguishing, and gas		96,187 63		
Repairs to street-lamps		117 30		
Erection of street-lamps		2,159 22		
Total for Washington			98,464 15	
Georgetown:				
Gas used in street-lamps		10,414 33		
Repairs to street-lamps		192 42		
Erection of street-lamps		235 04		
Contingent expenses		26 50		
Compensation of lamp-lighters		1,360 00		
Total for Georgetown			12,228 29	
Aggregate for street-lamps and gas			110,692 44	
IMPROVEMENTS AND REPAIRS.				
Compensation of laborers, &c., in engineer's department				
Compensation of supervisors of roads and employes		40,553 12		
Payments to contractors and for materials		14,864 42		
Repairs to pumps		37,648 36		
Expenses of the parking commission		2,856 05		
Payments to contractors under act of Congress of March 3, 1878, for general purposes		5,038 49		
North Capitol street sewer		9,828 20		
Filling grounds south of the Capitol, act of Congress, April 4, 1878		6,597 68		
Cleaning streets and alleys		14,705 00		
Aggregate for improvements, &c		29,199 80		
MISCELLANEOUS.				
Erection of new workhouse		3,176 19		
Expenses of hay-scales		59 18		
Interest on Linticum Institute loan		2,600 00		
Payment of laborers, &c., late board of public works		5 00		
Damages for opening alleys		24 09		
Damages to real estate		97 90		
Surveyor's fees		1,361 50		
Rent of property yards		200 00		
			161,291 12	

REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 29

Statement showing the amount expended, &c.—Continued.

Title of account.	Detail.	Total.	Aggregate.	Grand aggregate.
MISCELLANEOUS—Continued.				
Transfers of real estate	\$211 28			
Printing checks on United States Treasury	153 60			
Refunding amount advanced by the United States, under act of Congress approved March 3, 1877 ..	325,000 00			
Aggregate for miscellaneous			\$332,888 74	
SPECIAL ACCOUNTS.				
Redemption of tax-lien certificates	3,728 13			
Redemption of special tax scrip	4,676 67			
Redemption of tax-sale certificates	1,397 00			
Refunding erroneously paid taxes, &c	2,541 91			
Refunding amount deposited for purchase of instru- ments	270 00			
Total for above		\$12,613 71		
Redemption of Pennsylvania avenue scrip, issued under act of Congress approved July 19, 1876 ..	535 30			
Payments from special-tax fund for repaving Penn- sylvania avenue, under act of Congress approved July 19, 1876	5,339 30			
Total		5,874 60		
Aggregate for special accounts			18,488 31	
Grand aggregate of expenditures				\$1,600,032 48

AUDITOR'S AND COMPTROLLER'S OFFICE,
DISTRICT OF COLUMBIA,
Washington, October 23, 1878.

JOHN T. VINSON,
Auditor and Comptroller, District of Columbia.

APPENDIX B 3.

Estimated expenses of the auditor and comptroller's office District of Columbia, for fiscal year ending June 30, 1879.

Salary of auditor and comptroller	\$3,000 00
Salary of one bookkeeper	1,800 00
Salary of one clerk	1,500 00
Salary of three clerks, at \$1,400 each	4,200 00
Salary of one clerk	1,200 00
Salary of one clerk in charge of special assessments	2,160 00
Salary of two clerks, at \$1,200 each, on special assessments	2,400 00
Salary of two clerks, at \$1.50 per day each, on assessments	940 00
Salary of one clerk, at \$3 per day, on assessments	940 00
Contingent expenses, including furniture, books, stationery, &c	1,360 00
Total	19,500 00

Respectfully submitted.

JOHN T. VINSON,
Auditor and Comptroller of the District of Columbia.

C.—REPORT OF THE COMMISSIONER OF THE SINKING FUND.

OFFICE OF THE COMMISSIONER OF THE SINKING FUND,
Washington, D. C., November 8, 1878.

GENTLEMEN: I have the honor to inclose herewith estimates of amounts required to pay interest on and create a sinking fund for the payment of the funded debt of the District of Columbia for the fiscal year ending June 30, 1880, amounting to \$1,284,145.37.

The first two items of \$15,000 each in the estimate for sinking fund purposes are required by law to be set apart annually for the gradual redemption of the market and water-stock bonds; the remaining items are the annual amounts required under existing laws to redeem the bonds at maturity, and are estimated as if the sinking fund had been originally created and invested in the bonds.

Very respectfully,

JAS. GILFILLAN,
Treasurer of the United States.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

APPENDIX C I.

OFFICE OF THE COMMISSIONER OF THE SINKING FUND. *Washington, D. C., November, 19, 1878.*

GENTLEMEN: I have the honor to transmit herewith an estimate of the amount required under existing laws for the sinking fund for certain bonds of the District of Columbia for the service of the current fiscal year, ending June 30, 1879.

Very respectfully,

JAS. GILFILLAN,
Treasurer of the United States.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

Estimates of appropriations required for the service of the fiscal year ending June 30, 1879, by the commissioner of the sinking fund of the District of Columbia.

Detailed objects of expenditure, and explanations.	Estimated amount which will be required for each detailed object of expenditure.	Total amount to be appropriated under each head of appropriation.
<i>General expenses District of Columbia (sinking fund).</i>		
Market-stock bonds (for gradual redemption), per act of assembly of the District of Columbia, August 23, 1871, and June 19, 1872	\$15,000 00	
Water-stock bonds (for gradual redemption), per act of assembly of the District of Columbia, July 20, 1871, and June 26, 1873	15,000 00	
Permanent-improvement six per cent. bonds (for redemption at maturity), per act of assembly of the District of Columbia, July 10, 1871	101,509 00	
First issue of permanent-improvement seven per cent. bonds (for redemption at maturity), per act of assembly of the District of Columbia, June 23, 1873 ..	7,055 28	
Twenty-year six per cent. funding bonds (for redemption at maturity), per act of Congress, May 8, 1872; 17 Stat. at L., p. 86, sec. 2	29,183 84	
Thirty-year six per cent. funding bonds (for redemption at maturity), per act of assembly of the District of Columbia, June 20, 1872	7,772 27	
Fifty-year 3.65 bonds (for redemption at maturity), per act of Congress, June 20, 1874; 18 Stat. at L., p. 120	95,700 86	
		\$271,221 25

JAS. GILFILLAN,
Treasurer of the United States.

APPENDIX C 2.

Estimates of appropriations required for the service of the fiscal year ending June 30, 1880, by the commissioner of the sinking fund of the District of Columbia.

Detailed objects of expenditure, and explanations.	Estimated amount which will be required for each detailed object of expenditure.	Total amount to be appropriated under each head of appropriation.
<i>General expenses District of Columbia (interest on funded debt).</i>		
\$3,995,000, permanent improvement 6 per cent. bonds, per act of assembly District of Columbia, July 10 and December 16, 1871	\$239, 700 00	
\$1,150,000, funding loan 6 per cent. bonds, per act of Congress, May 8, 1872; 17 Stat. at L., p. 86, sec. 2	69, 000 00	
\$660,000, funding loan 6 per cent. bonds, per act of assembly District of Columbia, June 20, 1872	39, 600 00	
\$670,000, permanent improvement 7 per cent. bonds, per act of assembly District of Columbia, June 23 and 25, 1873	46, 900 00	
\$150,000, market-stock 7 per cent. bonds, per act of assembly District of Columbia, August 23, 1871, and June 19, 1872	10, 500 00	
\$423,000, water-stock 7 per cent. bonds, per act of assembly District of Columbia, July 20, 1871, and June 26, 1873	29, 610 00	
\$53,000, general stock 5 per cent., per act of corporation of Washington, August 19, 1828	2, 650 00	
\$685,000, general stock 6 per cent., per act of corporation of Washington, October 25, 1843	41, 100 00	
\$47,500, canal-stock 6 per cent., per act of corporation of Washington, April 14, 1847	2, 850 00	
\$178,3000, general stock 6 per cent., per act of corporation of Georgetown, appropriated	10, 698 00	
\$20,000, general stock 8 per cent., per act of corporation of Georgetown, May 12, 1871	1, 600 00	
\$20,000, bounty-stock 6 per cent., per act of corporation of Georgetown, September 24, 1864	1, 200 00	
\$30,000, market-stock 6 per cent., per act of corporation of Georgetown, January 9, 1864	1, 800 00	
\$281,750, funding loan 5 per cent. bonds, per act of Congress, June 20, 1878, Session Laws 1877 and 1878, p. 206	14, 087 50	
\$13,743,250, funding loan 3.65 per cent. bonds, per act of Congress, June 20, 1874, and February 20, 1875; 18 Stat. at L., p. 120	501, 628 62	\$1,012,924 12
<i>Sinking fund.</i>		
Market-stock bonds (for gradual redemption), per act of assembly District of Columbia, August 23, 1871, and June 19, 1872	15, 000 00	
Water-stock bonds (for gradual redemption), per act of assembly District of Columbia, July 20, 1871, and June 26, 1873	15, 000 00	
Permanent improvement 6 per cent. bonds (for redemption at maturity), per act of assembly District of Columbia, July 10, 1871	101, 569 00	
First issue of permanent improvement 7 per cent. bonds (for redemption at maturity), per act of assembly, District of Columbia, June 23, 1873	7, 055 28	
Twenty-year 6 per cent. funding bonds (for redemption at maturity), per act of Congress, May 8, 1872; 17 Stat. at L., p. 86, sec. 2	29, 183 84	
Thirty-year 6 per cent. funding bonds (for redemption at maturity), per act of assembly District of Columbia, June 20, 1872	7, 772 27	
Fifty-year 3.65 bonds (for redemption at maturity), per act of Congress, June 20, 1874; 18 Stat. at L., p. 120	95, 700 86	
		271, 221 25
		1, 284, 145 37

JAS. GILFILLAN, *Treasurer of the United States.*

* APPENDIX C 3.

OFFICE OF THE COMMISSIONER OF THE SINKING FUND,
Washington, D. C., November 11, 1878.

GENTLEMEN: I have the honor to state that there will be required for the expenses of this office for the fiscal year ending June 30, 1880, for clerical services, \$2,400; for contingent expenses no estimate is made, there being a balance on hand sufficient for that purpose.

Very respectfully,

JAS. GILFILLAN,
Treasurer of the United States.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

D.—REPORT OF THE COLLECTOR OF TAXES.

COLLECTOR'S OFFICE, DISTRICT OF COLUMBIA,
Washington, November 1, 1878.

GENTLEMEN: I have the honor to submit the accompanying report showing in detail the transactions of this office, transfers of stock of the late corporations of Washington and Georgetown, and collections of tax since date of last report (November 1, 1877) to July 1, 1878, together with estimate of amount required to defray the expenses of the collector's office for fiscal year ending June 30, 1879.

RECEIPTS.

General taxes for Washington City for year ending June 30, 1878.....	\$869, 177 22	
General taxes for Georgetown for year ending June 30, 1878.....	61, 879 63	
General taxes for Washington County for year ending June 30, 1878.....	57, 861 82	\$988, 918 67
Personal taxes for Washington City for year ending June 30, 1878.....	103, 175 08	
Personal taxes for Georgetown for year ending June 30, 1878.....	11, 867 51	
Personal taxes for Washington County for year ending June 30, 1878.....	3, 508 10	118, 550 69
General taxes for Washington City for year ending June 30, 1877.....	53, 790 27	
General taxes for Georgetown for year ending June 30, 1877.....	7, 027 04	
General taxes for Washington County for year ending June 30, 1877.....	8, 237 85	69, 055 16
Personal taxes for Washington City for year ending June 30, 1877.....	779 48	
Personal taxes for Georgetown for year ending June 30, 1877.....	293 82	
Personal taxes for Washington County for year ending June 30, 1877.....	82 22	1, 155 52
General tax for Washington City for year ending June 30, 1876.....	20, 175 36	
General tax for Georgetown for year ending June 30, 1876.....	5, 578 93	
General tax for Washington County for year ending June 30, 1876.....	2, 947 66	28, 701 95
General tax for Washington City for year ending June 30, 1875.....	32, 512 29	
General tax for Georgetown for year ending June 30, 1875.....	2, 132 39	
General tax for Washington County for year ending June 30, 1875.....	9, 050 59	43, 695 27
General tax for Washington City for year ending June 30, 1874.....	13, 330 65	
General tax for Georgetown for year ending June 30, 1874.....	1, 629 68	
General tax for Washington County for year ending June 30, 1874.....	7, 947 16	22, 907 49
Redemption of tax-lien certificates for year ending June 30, 1873.....	10, 993 08	
Redemption of tax-lien certificates for year ending June 30, 1872.....	1, 536 50	12, 529 58

REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 33

License	\$88, 163 64
Arrears, Washington City	4, 714 73
Levy court	72 25
Advertisements, 1-77	719 77
1-76	504 46
1-75	1, 661 42
Special tax, corporation of Washington	4, 344 66
District of Columbia	65 32
Repaving Pennsylvania avenue	3, 677 49
Water fund, water-main taxes, advertised	6, 971 25
water tax, water main, &c	89, 990 08
Permit-fees	847 42
Redemptions, sale June 13, 1876	365 11
August 14, 1877	104 17
tax-lien sales	164 76
Auctioneers' returns	205 00
A. G. Riddle, attorney, District of Columbia, costs, District of Columbia vs. A. Bregazzi	12 00
North O Street and South Washington Railway Company, repairing concrete	242 18
Total amount received	1, 488, 337 04

Transfers of the registered stock of the late corporations, Washington and Georgetown, D. C., made in accordance with act of the legislative assembly approved August 23, 1871, are as follows:

WASHINGTON STOCK.

Six per centum.

1877.		
Nov.	6. W. S. Cox and R. P. Dodge, trust Jennie E. Fowler, from Stephen P. Hill and P. Campbell, by H. E. Offley, attorney.....	\$1, 000 00
	9. Edw. T. Palmer, of Baltimore, Md., in trust for Mary A. Beall, Montgomery County, Maryland, from Robert W. McPherson...	1, 000 00
	Holmes E. Offley & Co., from Stephen Guista, by attorney	400 00
	Miss Elizabeth E. Tyson, Montgomery County, Maryland, from Stephen Guista, by attorney	1, 000 00
	12. Miss Elizabeth E. Tyson, Montgomery County, Maryland, from Stephen P. Hill, by attorney.....	300 00
	Holmes E. Offley & Co., from Stephen P. Hill, by attorney.....	200 00
	21. Hester T. Stiles, in trust, from Elizabeth Rowland, to J. S. Anderson, attorney	800 00
Dec.	5. Lewis Johnson & Co., from Susan B. Stevens, by Riggs & Co...	2, 100 00
	Riggs & Co., from Susan B. Stevens, by attorney	400 00
	6. Edw. T. Palmer, of Baltimore, in trust, from Riggs & Co., by attorney	400 00
	8. Mary N. Whitall, from Susan B. Stevens, by Riggs & Co.....	1, 100 00
	11. George A. Bohrer, in trust Mary L. Clib, from George A. Bohrer, guardian	3, 280 00
	Sarah Ellen Otterback, from George A. Bohrer, guardian	4, 238 00
	Herman W. Davis, guardian of Emma Jane Davis, from George A. Bohrer, guardian	4, 238 00
	17. W. S. Cox, C. S. English, and R. P. Dodge, in trust estate of D. English, from Lewis Johnson & Co., by attorney	2, 000 00
	Thomas K. Scheller, from Lewis Johnson & Co., by attorney	100 00
1878.		
Jan.	2. Watson Freeman, from H. E. Offley & Co., by attorney	600 00
	Peter Campbell, from estate of E. Anderson, by J. J. Wingud...	100 00
	9. D. W. Middleton, jr., from Peter Campbell	100 00
	11. Mary E. Pancoast, from Peter Campbell	100 00
	14. D. W. Middleton, jr., from Caroline Newman, by attorney	100 00
	17. Susannah Carrico, from Mrs. James Carrico	200 00
	25. Susanna R. Green, from estate of M. Green, by executrix	700 00
	28. Amelia M. L. Egan, from S. M. Massoletta	500 00
Feb.	5. Elizabeth A. Koonen, from Lewis Johnson & Co., assignees.....	100 00
	Miss Elizabeth S. B. K. Koonen, from Lewis Johnson & Co., assignees	200 00

34 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

1878.	
Peb.	5. Lewis Johnson & Co., from Lewis Johnson & Co., assignees \$1,000 00
	Thomas K. Scheller, from Lewis Johnson & Co., assignees 200 00
	13. Mary Blakeley, from Lewis Johnson & Co., assignees..... 1,000 00
	19. Lewis Johnson & Co., from estate of Adam Gaddis, by administrator 4,000 00
March	1. Miss M. E. Pancoast, from Lewis Johnson & Co 350 00
	Lewis Johnson & Co., from Mary K. Lewis 100 00
	2. Miss M. E. Pancoast, from Lewis Johnson & Co 50 00
	22. Thomas K. Scheller, from Lewis Johnson & Co 1,700 00
April	3. Miss Jessie M. Carter, from Lewis Johnson & Co 1,000 00
	6. Miss Jessie M. Carter, from Lewis Johnson & Co 1,000 00
	30. Elizabeth E. Tyson, of Montgomery County, Maryland, from Adam L. Rose, treasurer Harmony Lodge No. 9, I. O. O. F 400 00
May	3. Celestine Enstis, from Sarah E. Fenwick, by Riggs & Co., attorneys 200 00
	4. Miss Alice Yoe, of Prince George's County, Maryland, from William M. Maddox, guardian 3,114 00
	8. Lewis Johnson & Co. from Miss Alice Yoe 200 00
	14. Riggs & Co., from Thomas Killiam, by attorneys 500 00
June	3. H. Bowyer McDonald, from W. J. McDonald, by attorney 2,500 00
	12. William Laird, jr., trustee, from estate of Mary Miner, by executor. 1,340 00
	14. Laura M. Jones, from John H. Elliott, by Riggs & Co., attorney. 200 00
	Riggs & Co. from John H. Elliott, by attorney 200 00
	18. Ellen Janney, from Riggs & Co., by attorney 500 00
	20. Kate D. Angur, of Louisiana, from Riggs & Co., by attorney.... 200 00
	Kate D. Angur, of Louisiana, from Lewis Johnson & Co., by attorney 100 00
	H. E. Offley, trustee, from Lewis Johnson & Co., by attorney... 114 00
	21. A. M. & A. B. Leggett, of New York, from Riggs & Co., attorneys, administrator S. E. Jackson 2,000 00

Five per centum.

1877.	
Dec.	11. Sarah Ellen Otterback, from George A. Bohrer, guardian..... 345 00
	Herman W. Davis, guardian Emma Jane Davis, from George A. Bohrer, guardian..... 345 00
1878.	
Jan.	25. Susanna R. Green, from estate of M. Green, by the executor. 1,330 00

Chesapeake and Ohio Canal stock.

1878.	
Feb.	8. Harriet J. Bennett, from Stephen Guista, by attorneys 750 00
May	3. Celestine Enstis, from S. E. Fenwick, by Riggs & Co., attorneys.. 300 00
June	10. George W. Featherstonhaugh, of New York, from John D. McPherson, trustee, by attorney 100 00
	Thomas R. Featherstonhaugh, of New York, from John D. McPherson, trustee, by attorney 100 00
	James D. Featherstonhaugh, of New York, from John D. McPherson, trustee, by attorney..... 100 00

GEORGETOWN STOCK.

Six per centum.

1877.	
Dec.	10. Mary Ida Lutz, from executors estate of D. English 132 00
1878.	
Jan.	2. Lewis Johnson & Co., from H. L. Offutt 760 00
	4. David Auld, from S. C. Sidney, of Philadelphia, Pa., by attorney. 1,000 00
	17. John D. McPherson, from Lewis Johnson & Co., by attorney..... 760 00
	24. Miss H. J. Bennett, from Sarah E. Prior, by attorney 1,073 93
	27. Anne Eliza Laub, from C. H. Laub, by administratrix 397 60
	Anne Eliza Laub, guardian of Neenah Tipton, from C. H. Laub, by administratrix..... 552 40
March	4. H. E. Offley & Co., from Jane Shillinglaw, by L. S. Frey, attorney. 2,000 00
	9. Charles Whelan, from Charles A. Burke, trustee 57 03
	11. Peter Campbell, from Charles Whelan 57 03
	12. John C. and Mary A. Riley, executors, from H. E. Offley & Co., by attorney 2,000 00
April	1. John Rose Magruder, from Mary E. Magruder 2,000 00

REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 35

1878.		
April	2. John A. Campbell, from Peter Campbell.....	\$57 03
	9. Lewis Johnson & Co., from David Auld, by L. S. Frey, attorney.....	1,000 00
	15. John A. Campbell, from Franklin Whelan.....	57 03
	16. Johnston Brothers & Co., of Maryland, from John Rose Magruder, by H. D. Cooke, attorney.....	2,000 00
	26. Margaret Kenny, from Johnston Brothers & Co., Maryland, by H. D. Cooke, attorney.....	300 00
	H. D. Cooke & Co., from Johnston Brothers & Co., Maryland, by H. D. Cooke, attorney.....	1,700 00
May	2. H. E. Olley, trustee, from H. D. Cooke & Co.....	1,000 00
June	10. Ellen Jamney, of Philadelphia, Pa., from Lewis Johnson & Co., by attorney.....	1,000 00
	12. Farmers and Mechanics' National Bank, Georgetown, D. C., from Farmers and Mechanics' Bank, of Georgetown, D. C., W. Laird, jr., cashier.....	3,500 00
	13. H. H. John, jr., and William Marbury, executors of John Marbury, from H. E. Olley, trustee, by attorney.....	1,000 00
	14. Peter Campbell, from John A. Campbell.....	114 06
	18. Lewis Johnson & Co., from Peter Campbell.....	114 06

Market-house—six per centum.

1878.		
Feb.	27. Anne Eliza Laub, from estate of C. H. Laub, by administratrix. Margaret W. Davidson, from estate of C. H. Laub, by administratrix.....	283 40
	Clara W. Noyes, from estate of C. H. Laub, by administratrix.....	552 40
July	27. Louise L. Welch, from the estate of C. H. Laub, by the administratrix.....	552 40
	Nannie Walsh, from the estate of C. H. Laub, by the administratrix.....	552 40
March	8. Nannie Walsh, from Lonsie L. Welch, by J. W. Walsh, attorney.....	552 40
April	1. John Rose Magruder, from Mary E. Magruder.....	2,002 26
	16. Johnston Brothers & Co., of Maryland, from John Rose Magruder, by H. D. Cooke, jr., attorney.....	2,002 26
June	12. Farmers and Mechanics' National Bank, Georgetown, D. C., from Farmers and Mechanics' Bank, Georgetown, D. C., W. Laird, cashier.....	87 00
	19. Ellen H. Cummings, from Johnston Brothers & Co., Baltimore, Md., by H. D. Cooke, attorney.....	400 00
	Harriet B. Cummings, from Johnston Brothers & Co., Baltimore, Md., by H. D. Cooke, attorney.....	400 00
	H. B. Cummings, guardian, from Johnston Brothers & Co., Baltimore, Md., by H. D. Cooke, attorney.....	800 00
	H. S. Cummings, from Johnston Brothers & Co., Baltimore, Md., by H. D. Cooke, attorney.....	402 26

Bounty stock—six per centum.

1878.		
Feb.	27. Anne Eliza Laub, from the estate of C. H. Laub, by administratrix.....	700 00
April	9. Lewis Johnson & Co., from David Auld, by L. S. Frey, attorney.....	1,000 00
	19. Jessie M. Carter, from Lewis Johnson & Co.....	1,000 00

Eight per centum.

1878.		
June	12. The Farmers and Mechanics' National Bank of Georgetown, D. C., from Farmers and Mechanics' Bank of Georgetown, D. C., by W. Laird, jr., cashier.....	15,000 00

RECAPITULATION.

Washington City.

Six per cent., quarterly.....	\$47,224 00
Five per cent., quarterly.....	2,020 00
Chesapeake and Ohio Canal 6 per cent., semi-annual.....	1,350 00
	<hr/> 50,594 00

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Georgetown.

Six per cent., quarterly	\$22,632 17	
Market-house, quarterly.....	9,139 18	
Bounty, quarterly.....	2,700 00	
Eight per cent., quarterly	15,000 00	
		\$49,471 35
Total		100,065 35

Of the amount of \$1,488,337.04 collected by the District of Columbia through this office, the following items of amounts were received on account of trust funds, and are subject to the demands of the parties or commissions interested:

Redemption of tax-lien certificates, as per account of auditor.....	\$4,272 14	
Arrears of tax, corporation of Washington (subject to sinking-fund commission)	4,714 73	
Arrears of tax, levy court of Washington County (subject to sinking-fund commission)	72 25	
Special tax, corporation of Washington, payable to holders of scrip.....	4,344 66	
Repairing Pennsylvania avenue, payable to holders of scrip.....	3,677 49	
Redemptions from tax sales.....	631 04	
		17,712 31

Leaving a balance available to the District of Columbia of \$1,470,624.73.

Estimate of amount required for support of office for fiscal year ending June 30, 1880.

Salaries:

Collector	\$4,000	
One clerk	1,700	
One clerk	1,200	
One clerk	1,000	
One clerk	960	
One clerk, 307 days, at \$3.....	921	
One messenger.....	480	
Temporary employés.....	500	
		\$10,761

Other expenses:

Stationery	2,000	
Contingent	1,000	
		3,000
Total		13,761

The assessment valuation of real estate for year ending June 30, 1878, for the city of Washington, as per report of assessors, November 10, 1877, was \$83,101,484; the tax levy of \$1.50 on each \$100 of valuation, the amount derivable therefrom \$1,246,522.26; on account of which there has been collected to date \$1,020,881.72. The assessment valuation of real estate in Georgetown, as per report above referred to, was \$6,028,041; the tax levy of \$1.50, the amount derivable therefrom was \$90,420.61; on account of which there has been collected to date \$73,090.03. The assessment (outside of the two cities) Washington County amounts, as per above referred to report, to \$8,480,365.80 per cent. of which being estimated as subject to levy of \$1.25 on each \$100 of valuation being held for agricultural purposes, yields \$84,803.65; the residue, \$1,696,077, subject to the levy of \$1.50, will yield \$25,441.15, aggregating the sum of \$110,244.75; on account of which there has been collected to date \$72,964.10, leaving a balance on account of this levy of \$280,251.77, being 19 per centum; this balance to be discounted by errors in assessments as per certificates of superintendent of assessments on file.

The assessors reported November 20, 1877, a personal tax valuation:

Washington City.....	\$18,487,967
Georgetown.....	2,687,432
Washington County.....	549,607
Aggregating.....	21,725,006

On account of this return of personal tax there has been collected to date, \$150,853.47.

Quite a percentage of this tax, especially of that portion imposed by the board of assessors, has been modified, and that levied on capital of the national banks of this District suspended by processes of law, not yet decided.

On the 15th of December, 1877, the collection of all moneys due for water-rents, taxes, permit fees, and all other payments heretofore payable at the water-registrar's office, was ordered to be paid in this office. This order has been carried out with the endeavor to satisfy the tax-payer, which, coupled with the other duties belonging to this office, has very severely taxed the limited clerical force of this office, allowing no time for perfecting necessary office-work; for as soon as one strain of collection ends another commences, compelling much extraordinary clerical service.

The compendium of arrearage account is being pushed to completion as fast as time will permit, and when completed will be advantageous alike for the use of the office and tax-payer.

Much of this arrearage of tax is now overburdened with accrued penalty, interest, and other costs attendant on attempts to enforce collections thereof. A privilege to pay the same with six per centum per annum interest from the respective times said taxes were made due and payable, granted for a period of six months, would afford opportunity and encouragement to clear up properties so embarrassed, and the District would have sooner the avails of much of this delinquent tax.

Respectfully submitted.

JOHN F. COOK,
Collector of the District of Columbia.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

E.—REPORT OF SUPERINTENDENT OF ASSESSMENTS AND TAXES.

OFFICE OF SUPERINTENDENT OF
ASSESSMENTS AND TAXES,
Washington, D. C., November 5, 1878.

GENTLEMEN: In compliance with your communication of the 18th ultimo, I have the honor to submit a detailed statement of the transactions of this office since my last annual report.

All transfers of real property in the District of Columbia, made during the calendar year ending December 31, 1877, have been entered on the tax-books.

A general assessment of all real property in this District was completed by the board of assessors, and finally returned to this office September 19, 1878, and the general-assessment book for the city, which had been in preparation in this office since April 19, 1878, showing all the recent subdivisions and divisions by deed of all lots and parts of

lots, together with the front and square feet of each, and the rate of assessment, was completed and ready for use September 30, 1878.

The general tax-books for the fiscal year ending June 30, 1879, were then commenced and were completed in time for the collector to receive taxes November 1, 1878.

The assessed value of real property in the District as returned to the collector for the fiscal year ending June 30, 1879, was in—

Washington City	\$75,555, 801 00
Georgetown	5,242, 224 00
County	6,693, 417 00
Total	\$7,491, 442 00

The assessed value of real property in the District, as returned to the collector for the fiscal year ending June 30, 1878, was—

In Washington City	\$83,101, 484 00
In Georgetown	6,028, 041 00
In county	8,480, 365 00
	\$97,609, 890 00

To this add improvements made since last assessment—

In Washington City	1,224, 950 00
In Georgetown	41, 900 00
In county	60, 960 00
	1,327, 810 00
Total	98,937, 700 00

Showing the reduction of the assessed value of real property to be—

In Washington City	\$8,770, 633 00
In Georgetown	827, 717 00
In county	1,847, 908 00
Total	11,446, 258 00

The personal assessment, as reported by the board of assessors, although not yet completed, amounts, up to the 3d of November, to \$9,639,332.

Amount returned on account of personal tax to November 9, inclusive—

Washington	\$8,403, 306 00
Georgetown	1,156, 244 00
County	195, 771 00
Total	9,754, 321 00

There have been examined in this office upwards of (400) four hundred applications for licenses and transfer of licenses to sell liquor by retail.

Certificates showing the amount of real property assessed in the names of parties presenting themselves as bondsmen, &c., are daily issued.

The applications for licenses and transfers of the same and for certificates are increasing every year, and impose a vast deal of labor on this office.

I submit herewith the estimate of the amounts necessary for the support of this office for the fiscal year ending June 30, 1880.

Very respectfully,

WILLIAM MORGAN,
Superintendent of Assessments and Taxes.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

APPENDIX E 1.

OFFICE OF SUPERINTENDENT OF
ASSESSMENTS AND TAXES,
Washington, November 19, 1878.

GENTLEMEN: I have the honor of submitting the following estimate of receipts of the District government for the year ending June 30, 1880:

Tax on real property for 1879.....	\$1,290,612	
New buildings \$2,000,000, tax \$1.50.....	30,000	
	<hr/>	
	1,320,612	
Deduct 19 per cent.....	250,916	
	<hr/>	\$1,069,696
Tax on personal property.....	270,000	
Deduct 20 per cent.....	54,000	
	<hr/>	216,000
Delinquent taxes: Real estate, \$170,000; personal, \$75,000.....		245,000
Licenses		100,000
Markets, \$23,500; building permits, \$3,000.....		26,500
Interest on Washington school fund bonds.....		3,623
Fines police and criminal court, \$25,000; dog tax, \$6,000.....		31,000
Rent of wharves, hay-scales, &c.....		3,000
	<hr/>	
Total		1,694,819

Respectfully,

WILLIAM MORGAN,
Superintendent of Assessments and Taxes.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

APPENDIX E 2.

OFFICE OF SUPERINTENDENT OF
ASSESSMENTS AND TAXES,
Washington, D. C., November 5, 1878.

Estimate of the amounts that will be required for the support of the office of the superintendent of assessments and taxes for the fiscal year ending June 30, 1880.

SALARIES.

Superintendent	\$2,400 00
Three clerks.....	3,600 00
One messenger.....	720 00
	<hr/>
Total.....	6,720 00
	<hr/>
Twelve tax-books, 1879-'80.....	300 00
Stationery, &c.....	200 00
Incidentals	100 00
Repairing and binding record-books.....	300 00
	<hr/>
	900 00

F.—REPORT OF THE ASSESSORS.

ASSESSORS' OFFICE,

Washington, D. C., November 8, 1878.

GENTLEMEN: In answer to your communication of the 18th ultimo, requesting a detailed statement of the transactions of this department since our last report up to the first of last July, we have to inform you that since the date of said report we have completed the assessment of personal property for the fiscal year ending June 30, 1878, of which we advised you in a communication dated March 14, 1878.

In making said assessment we were unable, in many cases, to obtain such information as would insure its accuracy, and as a result many of the accounts were erroneous and have since been corrected.

On the 6th of April, 1878, in compliance with section 1 of the act of Congress approved April 3, 1878, entitled "An act to amend an act entitled 'An act for the support of the government of the District of Columbia for the fiscal year ending June 30, 1878, and for other purposes,'" we proceeded to assess the value of all the real property in the District of Columbia, which assessment has been completed and reported to the superintendent of assessments and taxes.

Section 2 of said act of April 3 authorized the assessors to take an accurate census of the inhabitants of the District of Columbia while engaged in making the assessment. We have to inform you that the additional duty imposed by said act has been completed, as shown by the accompanying report.

In compliance with our request, Mr. H. W. Brewer was appointed on the 27th day of March last to make surveys of the wharf lots in Georgetown. These surveys were found to be necessary to the completion of the Numerical and Plat Book now in course of preparation in this office. But little progress had been made with this book before it became apparent that other surveys were necessary. To meet that necessity permission was asked and granted for Mr. Brewer to extend his operations to other portions of Georgetown.

The work of preparing the Georgetown Numerical and Plat Book is being vigorously prosecuted, and we expect to furnish, for the next annual assessment, a more complete record of the real property of Georgetown than has ever before existed.

We renew the recommendation made in our last report for the abolition of the tax on goods and merchandise held for sale, and the substitution thereof of an annual license law. This latter will, in our judgment, be a more equal distribution of the tax on this class of property. This method of imposing a tax on business is, we think, by far less objectionable than the present, both to the officers whose duty it is to levy the tax, and also to the person taxed. It will also do away with the most unpopular feature of our personal-tax law, which requires the merchant to make an annual exhibit of his business affairs, often to his great detriment.

We also renew our recommendation for the abolition of the tax on the stock issued by the late corporations of Washington and Georgetown, and on all bonds, stocks, and certificates of indebtedness issued by the District of Columbia. This tax by the District on its own indebtedness is regarded by many as unjust and oppressive, a partial repudiation of the debt, and a violation of the understanding had at the time of the issue of these securities. It also tends to injure the credit of the District,

depreciating its own securities at home, and driving our own citizens who hold them, because of their loss of the one and a half per cent. tax, to dispose of them at a discount to alien creditors, who, because of their exemption from such tax, save a corresponding amount; hence to tax them is, we think, a discrimination against our own citizens.

We respectfully ask that authority be given to begin the annual assessment on the first of April instead of the first of July, as formerly. More time will thus be given for the examination of property, and the assessments can be made with greater accuracy. Greater facilities will be afforded for the preparation of the tax-books in the office of the superintendent of assessments and taxes, and many errors, the result of undue haste, will be avoided.

We believe the Commissioners have full authority under act of June 11, 1878, to give such authority.

The estimate of expenses of this department for the fiscal year ending June 30, 1880, are—

For three assessors	\$6,000
For three clerks	4,200
For assessments on annual assessment and personal tax	2,196
For books, blanks, stationery, &c.	600
For one messenger	600
Total	13,596

Very respectfully,

WM. DIXON,
G. A. BOHRER,
B. D. CARPENTER,

Assessors District of Columbia.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

APPENDIX F 1.

ASSESSORS' OFFICE,

Washington, D. C., November 5, 1878.

GENTLEMEN: We transmit herewith tables exhibiting in detail the results of the census taken this year:

Table No. 1.—Population of the District.

Table No. 2.—Foreign-born and citizen with parents of foreign birth, in District of Columbia.

Table No. 3.—Number of blind, insane, &c.

Table No. 4.—School population, children between the ages of 6 and 17 years, inclusive.

Table No. 5.—Educational table.

Table No. 6.—Ages by decades.

Table No. 7.—Nativities, American-born.

Table No. 8.—Nativities, foreign-born.

Very respectfully,

WM. DIXON,
G. A. BOHRER,
B. D. CARPENTER,
Assessors District Columbia.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

42 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

CENSUS OF 1878.

TABLE No. 1.

Population of the District of Columbia.

	White.		Colored.		Total.
	Male.	Female.	Male.	Female.	
Washington	42,282	46,753	18,741	24,171	131,947
Georgetown	3,843	4,184	1,567	1,977	11,571
County	5,228	4,137	3,587	3,581	16,523
Total	51,353	55,074	23,895	29,729	160,051

TABLE No. 2.

Foreign-born and citizen with parents of foreign birth.

	Foreign-born.		Parents foreign born.	
	Male.	Female.	Male.	Female.
Washington	6,229	6,417	26,865	25,950
Georgetown	352	346	1,636	1,551
County	912	747	3,113	2,985
Total	7,493	7,510	31,614	30,486

TABLE No. 3.

Showing number of blind, insane, &c.

	Blind.	Insane.	Deaf.	Dumb.	Idiotic.
Washington	56	22	53	36	20
Georgetown	6	.....	7	.....	2
County	11	635	51	48	5
Total	73	657	111	84	27

TABLE No. 4.

School population, children between the ages of 6 and 17 years, inclusive.

	White.	Colored.	Total.
Washington	22,687	9,593	31,680
Georgetown	2,158	794	2,948
County	2,185	1,987	4,172
Total	26,426	12,374	38,800

TABLE No. 5.

Educational table of the population.

	Attending school.	Cannot read.		Cannot write.	
		Under 20.	Over 20.	Under 20.	Over 20.
Washington	20,841	4,564	16,977	7,092	20,482
Georgetown	1,921	213	1,210	321	1,533
County	3,080	600	3,071	668	3,092
Total	25,842	5,377	21,268	8,081	25,107

TABLE No. 6.

Age of population by decades.

	Under 10 years.	Between 10 and 20.	Between 20 and 30.	Between 30 and 40.	Between 40 and 50.	Between 50 and 60.	Between 60 and 70.	Between 70 and 80.	Between 80 and 90.	Between 90 and 100.	100 and over.
Washington	30,866	25,726	25,692	20,599	14,806	8,180	4,187	1,485	328	58	20
Georgetown	3,046	2,469	2,125	1,573	1,145	629	408	145	23	7	1
County	4,566	3,128	2,751	2,538	1,785	981	481	240	57	5	1
Total	38,478	31,323	30,568	24,710	17,736	9,790	5,076	1,870	408	70	

TABLE No. 7.

Table showing the natirities (American born) of the population of the District of Columbia.

	District of Columbia.	Maryland.	Virginia.	Alabama.	Arkansas.	California.	Colorado.	Connecticut.	Delaware.	Florida.	Georgia.
Washington	57,560	20,705	21,330	194	45	87	10	498	293	80	284
Georgetown	6,766	1,633	1,692	11	1	7	.....	15	20	9	12
County	7,265	2,855	2,792	13	1	5	1	49	18	10	34
Total	71,591	25,193	25,814	218	47	99	11	562	331	99	330

	Illinois.	Indiana.	Iowa.	Kansas.	Kentucky.	Louisiana.	Maine.	Massachusetts.	Michigan.	Minnesota.	Mississippi.	Missouri.
Washington	376	340	234	86	336	220	675	1,272	237	69	179	197
Georgetown	8	4	1	1	14	7	18	45	10	3	16	6
County	36	29	19	3	32	12	59	146	29	5	13	21
Total	420	373	257	90	382	239	752	1,463	276	77	208	224

42 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

TABLE No. 7.—Table showing the nativities, &c.—Continued.

	Nebraska.	Nevada.	New Hampshire.	New Jersey.	New York.	North Carolina.	Ohio.	Oregon.	Pennsylvania.	Rhode Island.	South Carolina.	Tennessee.
Washington.....	26	2	398	789	5,041	465	1,415	12	4,270	143	359	234
Georgetown.....			13	29	202	18	54		165	5	16	7
County.....	2		42	58	391	86	104	3	321	16	34	39
Total.....	28	2	453	876	5,634	569	1,573	15	4,756	164	409	280

	Texas.	Vermont.	West Virginia.	Wisconsin.	Alaska.	Arizona.	Dakota.	Indian.	New Mexico.	Utah.	Washington.	Wyoming.
Washington.....	74	376	259	148	6	2	6	10	2	7	5	2
Georgetown.....	5	3	5	12								
County.....	9	35	1	6				1	6			
Total.....	88	414	265	156	6	2	6	11	8	7	5	2

Total American born, 144,790.

TABLE No. 8.

Table showing the nativities (foreign-born) of the population of the District of Columbia.

	England.	Ireland.	Scotland.	Wales.	Canada.	New Brunswick.	Nova Scotia.	West Indies.	France.	Germany.	Austria.	Russia.	Poland.
Washington.....	1,220	5,916	348	30	262	11	18	62	233	3,843	29	30	91
Georgetown.....	65	409	11	2	8	1	2	2	12	208			1
County.....	173	911	43	3	39	4	2	1	20	672	6	2	12
Total.....	1,458	7,236	402	35	309	16	22	65	265	4,723	35	32	104

	Belgium.	Italy.	Denmark.	Sweden.	Norway.	Switzerland.	Spain.	Turkey.	Liberia.	Cuba.	Mexico.	Japan.	South America.
Washington.....	12	160	21	24	9	100	26	2	2	34	8	3	10
Georgetown.....		1		1		3	2						3
County.....	1	5	5	2	4	24	1				1		
Total.....	13	166	26	27	13	127	29	2	2	34	9	3	13

TABLE No. 8.—Table showing the nativities, &c.—Continued.

	Australia.	China.	Hungary.	Bavaria.	Hanover.	Sandwich Islands.	Saxony.	Holland.	Portugal.	Java.	Isle of Man.	Honolulu.	Brazil.
Washington	7	3	8	11	4	4	1	11	5	1	2	1	2
Georgetown	1	1		1				1					
County			1	5			3	4	1				
Total	7	4	9	17	4	4	4	16	6	1	2	1	2

	Africa.	Demarara.	Porto Rico.	New Zealand.	Greece.	Bermuda.	Jamaica.	Egypt.	Finland.	Sicily.	Hayti.	Madeira.	Malta.	At sea.
Washington	1	1	1	4	1	2	1	1	2	1	1	1	1	2
Georgetown														1
County	1										1	1		
Total	1	1	1	4	1	2	1	1	2	1	2	2	1	3

Total foreign-born, 15,261.

POPULATION.

American-born	144,790
Foreign-born	15,261
Total	160,051

APPENDIX F 2.

Statement of the revenue derived from general and special taxes, licenses, &c., for the city of Washington, D. C., from 1802 to April 30, 1878, inclusive.

Year.	Ward fund.	District fund.	Personal tax.	Special-improvement tax.	General fund.	School fund.	Metropolitan police fund.	Tax for water-mains.	Total for each year.
1802 to 1811.....	\$272,368 13			\$32,514 25	\$11,827 38	\$3,340 38			\$304,882 38
1812 to 1821.....	505,035 02		\$1,575 22	3,810 15	12,561 72	4,133 91			573,445 74
1822.....	39,025 21		1,720 10	3,597 09	10,337 20	3,112 18			64,808 62
1823.....	41,075 80		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1824.....	37,333 73		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1825.....	42,334 77		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1826.....	38,829 67		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1827.....	41,778 63		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1828.....	42,024 68		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1829.....	44,418 40		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1830.....	50,403 30		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1831.....	42,240 35		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1832.....	85,173 97		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1833.....	78,446 20		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1834.....	70,011 86		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1835.....	56,235 82		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1836.....	72,500 08		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1837.....	77,875 69		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1838.....	79,765 08		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1839.....	67,540 64		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1840.....	70,500 60		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1841.....	77,095 03		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1842.....	70,950 99		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1843.....	85,925 24		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1844.....	82,513 55		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1845.....	74,007 02		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1846.....	98,370 60		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1847.....	87,713 00		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1848.....	83,953 23		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1849.....	120,914 77		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1850.....	140,164 98		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1851.....	167,186 91		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1852.....	163,815 01		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1853.....	140,074 94		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1854.....	217,539 24		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1855.....	141,284 30		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1856.....	137,298 34		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1857.....	175,324 50		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1858.....	232,114 85		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1859.....	225,689 84		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1860.....	150,352 42		1,611 50	15,182 66	10,198 78	3,366 26			66,063 97
1861.....			1,611 50	15,182 66	10,198 78	3,366 26			66,063 97

1862	182,684 42	193,183 32	144,012 81	43,527 84	562,405 39
1863	178,572 77	164,158 00	145,300 82	47,054 97	533,693 22
1864	171,237 95	277,821 43	243,305 82	81,134 01	539,574 66
1865	230,268 16	276,821 43	245,370 13	81,627 93	856,146 65
1866	230,268 72	285,520 83	253,539 54	71,840 28	946,054 89
1867	278,291 77	263,003 97	287,511 21	54,001 16	914,732 27
1868	319,682 31	423,782 36	162,118 73	136,530 29	1,103,701 74
1869	292,717 38	522,006 68	179,815 91	156,121 25	1,180,909 49
1870	273,522 13	539,163 72	267,134 23	166,685 64	1,391,084 96
1871, to December 31	275,236 85	350,302 54	341,570 64	279,021 68	1,329,613 12
1872	.....	307,802 00	163,622 73	317,002 66	1,428,232 07
1873	.....	218,421 71	290,382 14	298,644 99	1,601,418 23
1874	.....	55,930 47	163,872 49	.....	1,693,860 22
1875	.....	2,307 35	192,590 81	.....	2,576,329 04
1876	.....	43,489 27	165,855 91	.....	1,307,733 34
1877	.....	17,404 06	117,345 74	.....	1,398,735 15
1878, to April 30	.....	7,154 86	87,361 35	.....	691,966 12
	.....	^a 2,544,975 46	.....	.....	2,544,975 46
	.....	.....	.....	.....	517,371 97
Totals.....	14,775,069 84	327,265 00	4,768,779 86	1,950,764 29	34,037,965 97

* Amount paid on account of improvements by late board of public works and District government.

Official copy.

WM. DIXON
R. W. TOMPKINS.

G.—ANNUAL REPORT OF THE INSPECTOR OF BUILDINGS.

OFFICE OF THE INSPECTOR OF BUILDINGS,
Washington, D. C., October, 1878.

GENTLEMEN: I have the honor herewith to transmit my annual report for the year ending June 30, 1878, covering the transactions of this office since my last report, commencing on the 1st day of November, 1877, together with some few suggestions and recommendations for the coming year.

Tabular statement of permits issued for buildings, &c., from November 1, 1877, to June 30, 1878, inclusive.

No.	Description.	Value.
344	New brick dwellings and stores	\$775, 880
228	Brick repairs, including back buildings	97, 251
22	Brick stables and carriage-houses (private)	8, 770
3	Brick livery-stables	64, 000
1	Brick school-house	100, 000
1	Brick church	700
17	Brick workshops	24, 830
2	Greenhouses	250
4	Brick office buildings	16, 375
2	Ice-houses	2, 500
172	Frame repairs, including back buildings	29, 267
73	Frame sheds	3, 429
30	Removals of frame houses	2, 325
3	Signs	36
1	Boller	150
76	Awnings .....	.....
22	Vaults (being 265½ linear feet) .....	.....
1, 001	Permits at a total value of	1, 125, 763

The total revenues for the eight months amount to \$2,007.

By reference to the above statement it will be seen that the total number of new buildings erected during the eight months is 372, making a total number of buildings erected in the cities of Washington and Georgetown of 27,563. This is exclusive of buildings owned by the United States.

There have been entered 65 complaints of dangerous and unsafe buildings, all of which have been examined and acted upon by the inspector and his assistant.

In the absence of positive law, I have experienced considerable difficulty in enforcing the proper construction of buildings.

The building regulations being now authorized with power to enforce them will, in future greatly assist me and secure to the community a much better class of work.

In connection with this I would state that the outdoor duties are more than can be properly attended to by myself and one assistant, especially as he has to go afoot, which you will readily see when taking into consideration that we have to look after and examine, while in course of construction, all new buildings, all alterations and repairs to old buildings, in both of the cities of Washington and Georgetown, besides plan and supervise the construction and repairs of all the buildings belonging to the District; also examine into all cases of complaints made to this office.

While I am opposed to increasing the expenses of this office, if it could be avoided, I am compelled to ask you for an additional assistant for the outdoor work, or, which would be cheaper and I believe more efficient, to furnish the present outdoor assistant with a conveyance which would enable him to attend to the necessary work.

However arduous the duties have been, the work of the department, as well in as outside of the office, has been well attended to and well kept up. In this connection I would also respectfully submit for your consideration the increase of the salary of the second assistant, who is required to have a full knowledge of building construction as well as of materials, which I am pleased to state is the case with the present incumbent, and to retain him it will be necessary to make an advance upon his present pay.

District buildings.

STATION-HOUSES.

As recommended in my last report, the cells in the various station-houses have been very effectually ventilated, and the defective construction of the sewer in the fourth-precinct station remedied. A cell-building has been added to the first-precinct station-house by the owner of the property, under the supervision of this office, and it is now a very complete station-house.

The fifth-precinct station-house, situated on Tenth street, between D and E, northwest, is not adapted for the purpose, being hemmed in on both sides, and thereby very deficient in light and ventilation. I find it is under lease, at \$1,200 per annum, the lease expiring October 1, 1880. With a view to a change, I have examined the old Central guard-house, on Louisiana avenue, between Ninth and Tenth streets, and I find that by an expenditure of \$2,000 it can be put in good order, and make a first-class station-house, and be an economy to the District, as it does not bring in any revenue as it now stands.

I have examined all the other station-houses as to their present condition, and have estimated the cost of keeping them in repair during the fiscal year at \$1,700.

POLICE-COURT BUILDING.

Since my last report, the old Unitarian Church, at the corner of Sixth and D streets, has been reconstructed for a police court, and is now occupied as such. It is well adapted for the purpose, and accommodates all the offices connected with the courts.

MARKET-HOUSES.

The market-houses are all in a fair state of repair. The cost of keeping up the same during the fiscal year will be about \$2,000.

I would respectfully call your attention again to the great necessity of building a suitable market-house on Seventh street, between N and O streets, northwest. The old sheds are fast becoming dilapidated and unsafe, and altogether unfit for the purpose. The cost of a new building would be repaid by the sale and rent of the stalls within the next five years. The situation is certainly the best in the northern section, being convenient to street railways and to a large and growing population, and be an ornament to that thriving portion of the city.

ENGINE-HOUSES.

As already stated in a detailed report upon the condition of the engine-houses, there is required an immediate appropriation of about \$1,060 to make necessary repairs to the engine-houses, and a further appropriation of \$1,000 for necessary repairs during the fiscal year.

As stated in my last report, the No. 5 engine-house in Georgetown is in a very inferior condition, the walls being sprung and the building altogether ill adapted for prompt working.

With a view to provide a proper house, near the same locality, plans and specifications have been prepared for remodeling the old town-house on Bridge street, and which I find would make a very superiorly arranged house, at a cost of about \$3,700. As this is District property, my opinion is that it would be more economical than to rebuild on the present site.

I would also impress upon you the necessity of immediate action upon the recommendation made in my report of September 9, to repair and make safe the No. 2 engine-house.

In conclusion, I would recommend an appropriation for one more engine-house in the northern section, as the money has already been appropriated for the apparatus. The cost of the building and ground would be about \$10,000.

NEW WORKHOUSE.

I would recommend that the two present wings of the new workhouse be fully completed and the heating apparatus put in out of the present appropriation, to do which will require \$5,500. It will require a further appropriation of \$8,500 to fully complete the south wing, now commenced.

SCHOOL-HOUSES.

I am unable to state the condition or furnish estimates for school buildings, as they are almost entirely in the hands of the mechanical janitor employed by the school board, except in a few instances, where it has been referred to me.

I would here again remark that I am of the opinion that all the District buildings should be under the supervision of this office, which would enable the inspector more fully to report upon their condition and advise as to the necessity for repairs and make the necessary estimates.

RECAPITULATION OF ESTIMATES.

Repairs to station-houses	\$1,700
Altering Central guard-house	2,000
Repairs to market-houses	2,000
Repairs to engine-houses	2,060
Altering town-house to engine-house	3,700
New engine-house and lot	10,000
Completing south wing of workhouse	8,500
Total	29,960

The estimated expenses of this office for the year are as follows:

Salary of inspector	\$2,400
Salary of first assistant	1,700
Salary of second assistant	1,000
Salary of messenger	480
Contingencies, books and blanks	300
Total	5,880

Respectfully submitted,

THOS. B. ENTWISLE,
Inspector of Buildings.

Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

H.—REPORT OF THE BOARD OF FIRE COMMISSIONERS.

OFFICE BOARD OF FIRE COMMISSIONERS,
Washington, November 1, 1878.

GENTLEMEN: I have the honor to transmit herewith the report of the board and accompanying reports of the chief engineer of the fire department and the superintendent of the fire-alarm telegraph, as called for in your communication of October 18, 1878.

PETER F. BACON,
Secretary.

Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

OFFICE BOARD OF FIRE COMMISSIONERS,
Washington, November 1, 1878.

GENTLEMEN: In accordance with your request of October 18, 1878, we have the honor to submit herewith a report of the transactions of the fire department from November 1, 1877, to June 30, 1878, with the recommendations and estimates for its support for the fiscal year ending June 30, 1880.

EXPENDITURE.

The expenditures of the department during that period were as follows:

Fire department, salaries	\$36, 733 78
Fire department, contingent, including hose, repairs to apparatus, feed, and supplies of all kinds	11, 833 72
Repairs of engine-houses	2, 292 05
Purchase of horses	1, 075 00
Fuel	556 06
Fire-alarm telegraph, salaries	2, 660 83
Contingent	1, 150 62
	<hr/> 56, 352 06

The above figures are from the books of the auditor of the District. It will be seen that the figures of Mr. Miles do not agree with them, as he claims an expenditure for that period of \$4,338.70. This discrepancy is an illustration of the necessity that all bills appertaining to the fire department and paid out of the funds for its support should be transmitted to this board for its approval, so that a correct record of the same can be kept by us. As it is now, bills for repairs of engine-houses and other bills appertaining to this department never come before us, so that we have no means of knowing what the expenses of the department are without going to other officers of the District government for the information. We deem it unnecessary to give all the reasons why, if we are to be held responsible for an economical administration of the fire department, we should at least know what expenditures are made on account of that department, as such reasons will no doubt suggest themselves to you as business men and experienced officials when the matter is called to your attention.

ESTIMATES.

The estimates for the ensuing year amount to \$117,130, as will be seen by the accompanying reports of the chief engineer and superintendent of the fire-alarm telegraph.

Since the date of our last report authority was obtained from Congress

for the erection of two new engine-houses and the equipment of three additional companies, and \$48,000 was appropriated therefor, none of which amount was expended prior to July 1, 1878.

BUILDINGS.

The buildings and rooms occupied by the department are as follows :
Offices for the board of commissioners and chief engineer, room 20, Columbia buildings.

Central office fire-alarm telegraph, No. 486 Louisiana avenue.

Fire-engine houses and one truck-house in the several sections of the city.

In this connection attention is called to the suggestions in the report of the chief engineer, relative to the necessity for the repair of some of the houses, which suggestions are approved.

APPARATUS.

The apparatus of the department has, as far as possible, been kept in the best order, as it is absolutely necessary that it should be kept ready for immediate use at any hour. Defects which in other services could be borne with or risked cannot in this service be permitted.

HORSES.

The number of horses now in service is 28, of which 8 are useless. It may be well to state here that the animals recently purchased for the department have not been up to the standard required. The work is heavy and arduous, which none but the best animals can stand, and we submit that it is not true economy to purchase low-priced horses, as they are liable to break down on the first hard run. Formerly it was not unusual for horses to remain in the service three or four years. Now (and the work is no heavier) the average will not reach one year.

FIRE-ALARM TELEGRAPH.

The fire-alarm telegraph continues to work in the most satisfactory manner, but to meet the needs of the service there should be at least forty-seven additional boxes erected in different sections of the cities of Washington and Georgetown. The cost would be small and the results great, as many sections are now comparatively unprotected by this valuable auxiliary of the department.

FIRE-PLUGS.

As shown by the report of the water registrar there are 757 fire-plugs in the District. This number should be increased at every opportunity, as it is entirely too small, and such of the old plugs as have 9-inch outlets should be altered to 10-inch, thus securing uniformity. Our predecessors have made similar recommendations several times, and the matter is a very important one and should not be neglected. Without a thorough water supply the fire department is valueless, and in this District the number of plugs is certainly not up to the requirements. The volume of water is ample; let the outlets be large enough to enable us to avail ourselves of it. In the neighborhood of some of the large buildings, particularly in the central parts of the city, the 9-inch plugs should *at once* be replaced with 10-inch plugs.

DISABLED FIREMEN.

We again call attention to the fact that no provision is made by law for members of the department who are unfit for active service by reason of disability incurred in the line of duty. We are compelled to carry these men on the rolls as active members, or else discharge them from the force broken in health and unable to make a living for themselves or families. We would recommend that provision be made for such men in other branches of the public service suited to their physical condition. Where men are so far broken in health or maimed by accident as to be totally unfit for any duty whatever, they should be retired upon pay sufficient to keep them comfortably during the continuance of their disability. There are several men now in the department who will never be able to perform active duty as firemen, and some provision should be made for them at once.

FIREMEN'S CONVENTION.

We beg leave to call your attention to the fact that the seventh annual convention of the national association of fire engineers of the United States will be held in this city in September, 1879. In the several cities in which previous conventions have been held especial efforts have been made for the care and entertainment of its members. It is desirable that this city should not prove an exception, and we urgently recommend that the sum of \$1,000 be set apart for that purpose. The importance of this organization is now so universally recognized that its annual sessions bring together the representatives of all the leading fire departments of the country, both paid and volunteer, and thus far their labors have produced good results, as was to be expected from their interchange of experiences and practical ideas.

THE OFFICERS AND MEN.

We cheerfully bear testimony to the general good conduct of the officers and men of the fire department. Their efficiency is best shown by the figures in the chief engineer's report, which demonstrate the results of prompt suppression of fires much better than any unsubstantiated statements could.

Knowing that their appointment to and retention in office does not depend upon political influence, but upon their fitness for duty as firemen, the members of the force, in these hard times, endeavor to perform their duties in a satisfactory manner. But they would accomplish little without thorough discipline, and to the intelligent supervision of Mr. Cronin, chief engineer, and his promptness and zeal in the performance of his duties, supported by the faithful service of his assistant, Col. W. O. Drew, must be ascribed the high standard attained by the force, its promptness, celerity of movement, reputation for good order, and acknowledged success in subduing fires and preventing large conflagrations. The superintendent of the fire-alarm telegraph, Mr. Miles, has proved himself a very efficient and useful officer, and he and his assistants have discharged their duties with such zeal and fidelity that the fire-alarm apparatus is kept in most excellent order, and prompt and certain alarms are given, enabling the engines and men to reach fires with but little delay. Time is a most important factor in the suppression of fires, and every minute gained represents many dollars' worth of property saved. Our community cannot claim exemption from the great

disasters to which all cities are subject, but the history of the District of Columbia fire department is a guarantee that our citizens have all the security against fire which a department of the size of ours can afford.

W. R. COLLINS,
PETER F. BACON,
THOMAS L. HUME,

Fire Commissioners District Columbia.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

APPENDIX H 1.

OFFICE CHIEF ENGINEER, FIRE DEPARTMENT,
Washington, November 1, 1878.

GENTLEMEN: In compliance with your request of October 18, 1878, I have the honor to submit herewith a report of the operations of the fire department from November 1, 1877, to June 30, 1878, and estimates for the fiscal year ending June 30, 1880, also a detailed statement of the number of fires, a roster of members, and an inventory of property of each company.

During the period named the number of alarms was 75, of which 61 were actual fires, 9 false alarms, 2 test alarms, and 3 caused by burning chimneys. The estimated losses were \$16,950, and the insurance \$13,400. As compared with the same time the preceding year this shows a large reduction, both in fires and losses.

APPARATUS.

The apparatus on hand consists of 6 engines, 7 hose-carriages, and 1 old and 1 new hook and ladder truck, the former so completely out of repair as to render it absolutely worthless, and it should be rebuilt. The remainder are in good working order.

HOUSES.

Since the last report the repairs to houses have been very slight and only of a temporary character. Those occupied by Nos. 1 and 4 companies need general repairs, including new roofs, and the truck-house, which is to be altered for an engine company, will also need considerable change and improvement. The house of No. 5 company, in Georgetown, was built over thirty years ago, and is not adapted to the purposes for which it is used, being entirely too small for the use of the company, affording no proper accommodations for the officers and men, having insufficient room for stabling purposes, and is scarcely of sufficient size to house the apparatus. To remedy this, I suggest that the old town-hall (now unoccupied) be altered and converted into an engine-house, which can be done for a reasonable cost, and will make one of the best engine-houses in the District.

HOSE.

In this particular the department is now amply provided, there being on hand 8,750 feet of canvas hose in good condition, 1,900 feet in fair condition, and 2,100 feet in bad condition. Of leather hose there are 600 feet in good and 700 feet in bad condition.

HORSES.

There were purchased during the period embraced in this report 5 horses; turned over to the property clerk, 5; now on hand, 28, of which only 20 are in good condition.

WATER SUPPLY.

Attention has heretofore been called to the fact that many fire-plugs, especially those that were first laid in the business portion of the city, have only 9-inch outlets. In order that a full supply of water may be had in case of need, these plugs should all be altered to 10-inch outlets, and a number of new ones erected.

FIRE-ESCAPES.

I deem it my duty to again call your attention to the necessity of fire-escapes in all large buildings where numbers of persons are congregated. I quote from my last report:

It is of course impossible to designate any class of apparatus to be used for this purpose, as in the multiplicity of designs no common standard has been agreed upon by the fire departments, but speedy legislation should compel all proprietors of hotels, public halls, and extensive business places to make the best arrangement possible in that direction, and a sense of duty should actuate the several chiefs of the government departments in the same manner.

In addition to fire-escapes I would ask that in all the government buildings in the city iron ladders reaching from the ground to the roof be constructed, and kept in position at all times, thus providing a mode of reaching the roof in time of fire, should one occur. This precaution should also be taken by the hotels. Such ladders could be placed against the inside or court-yard walls of the public buildings, and in the others suitable places could be found, so as to prevent their interfering with the appearance of the edifice.

ESTIMATES.

The estimates submitted are, for the cost of maintaining the two new companies from January 1 to July 1, 1879, \$13,280, and for maintaining the entire department for the fiscal year succeeding, \$109,280. This is in excess of previous years on account of the addition of one engine and one truck company to the department. If another new engine company is organized, and it is needed, the above estimate would be increased by \$12,120.

Experience has demonstrated that to properly manage a hook and ladder company, with the multitudinous duties imposed upon it on the fire-ground, a membership of at least twelve men is necessary, and I respectfully and urgently recommend that the truck company now in the service, and the new one to be organized, be placed upon that basis. With the necessity for such increased membership in view, I have made my estimates for the salaries for the two truck companies upon the basis of twelve men to each company.

MORALE OF THE FORCE.

It is a gratifying fact that during the time embraced in this report the conduct of the members has been so generally good that no dismissal has occurred, and the few breaches of our strict discipline were so slight as to merit only reprimands or other nominal punishment.

CONCLUSION.

In concluding, I beg leave to return sincere thanks to the honorable Commissioners of the District, the board of fire commissioners, the as-

sistant chief engineer, and other officers and members of the department, and to the major and superintendent and officers of the Metropolitan police, all of whom, in their respective capacities, have rendered me ready, valuable, and intelligent assistance in the discharge of my duties.

MARTIN CRONIN, *Chief Engineer.*

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

Fire Department estimates, year ending June 30, 1880.

For salaries of commissioners, chief, and assistant chief engineer, officers and men of six engine and two truck companies	\$69,680	
Contingent expenses of above	33,600	\$103,280
Hose (not included)		6,000
Salaries and contingent expenses additional company		12,120
		121,400

Estimates for two truck companies, twelve men each, from January 1, 1879, to June 30, 1879.

Salaries	\$9,080	
Contingent expenses	4,200	\$13,280
Estimates for additional engine company for same period :		
Salaries	3,960	
Contingent	2,100	6,060
		19,340

APPENDIX H 2.

No. 1 ENGINE, WASHINGTON, D. C.,

October 22, 1878.

SIR: Please find inclosed inventory of stock, fixtures, &c., of No. 1 Company for year ending 30th June, 1878.

Respectfully, yours,

JOS. PARRIS, *Foreman.*

MARTIN CRONIN, Esq.,

Chief Engineer District of Columbia Fire Department.

Annual report of stock, fixtures, &c., of Engine Company No. 1, ending June 30, 1878.

Members of No. 1 Engine Company.

Names.	Age.	Occupation.	Residence.
Joseph Parris	42	Plasterer	1829 L street.
James Moriarity	38	Machinist	K, bet. 20th and 21st streets.
William B. Read	34	Plumber	23d, bet. G and H streets.
Augts. Dunbar	35	Laborer	2112 N street, n. w.
Frank Donnelly	35	Pattern-maker	1210 8th street.
William French	35	Laborer	1825 L street.
Robert La Bille	34	do	40 I street, n. e.
Daniel Williams	37	do	1212 24th street.
Calhoun Clark	39	do	1215 L street.
James F. Edwards (extra)	44	Carpenter	1606 16th street.

SITTING-ROOM.

1 writing-desk.
1 stove.
1 carpet.
8 chairs.
1 looking-glass.
1 clock.

1 center-table and cover.
2 pictures.
1 round table.
1 checker-board.
1 old sofa, in very bad order.

BED-ROOM.

1 carpet.
10 iron bedsteads.
12 gum spittoons.
10 chairs.
10 yards old crash.
40 pillow-slips.
40 sheets.
80 blankets.
14 towels.
20 new white bed-spreads.
20 old spreads.
20 mattresses, hair and sluck.
16 pillows.
2 extra bedsteads.

1 alarm-gong.
1 copy rules.
1 stair-carpet.
1 oil-cloth, in bad condition.
1 feather duster.
1 brush and dust-pan.
1 coal-hod.
1 soap-dish.
3 extra globes.
1 scrub-brush.
1 old stair-carpet.
1 pope's head brush.
1 looking-glass.
1 comb and brush, in bad condition.

ENGINE-ROOM.

1 second-class Amoskeag engine, in good order, complete.
4 extra wheels.
2 monkey-wrenches.
1 jack-screw.
1 extra pole.
2 sponges.
2 chamois skins.
3 oil-cans.
6 assorted wrenches.
8 old files.

1 chisel.
1 shovel.
1 poker.
2 lamps.
1 old gas heater, and in bad order.
1 old vise, in bad order.
1 whip.
5 gallons machine-oil.
1 gum bucket.
2 old spittoons.
50 feet small gum hose.

HOSE DEPARTMENT.

1 hose-carriage, complete.
1, 850 feet good hose.
1, 100 feet in bad order.
200 feet life-line.
50 feet picket-ropes.
1 compound hose-pipe.
1 smoke-cap.
1 brass pipe.
2 Johnson pumps.

4 hose jackets.
1 whip.
2 cut-off nozzles.
6 old pipes.
2 lamps, one a reflector.
1 hose-oiler.
1 extra pole.
1 gum bucket.

HOSTLER'S DEPARTMENT.

4 horses, 2 in good and 2 only in fair condition.
4 sets double harness, in good order.
1 breast-collar, complete.
2 extra sets of reins.
4 extra collars.
2 forks.
2 currycombs and 2 brushes.
1 shovel.
2 brooms.

1 clipping-machine, in bad order.
1 pair shears and comb.
1 cutting-box.
25 bushels oats.
300 pounds straw.
600 pounds hay.
5 bushels mill feed.
2 mane-brushes.
4 horse-blankets.

ADJOINING ENGINE-ROOM.

1 carpet.
8 arm-chairs.
1 glass.
4 pictures.
1 stove.

1 comb and brush.
1 soap-dish.
1 bad piece oil-cloth.
1 zinc platform for stove.
1 old coal-hod.

MISCELLANEOUS.

4 tons splint coal.
12 tons hard coal.
 $\frac{1}{2}$ cord sawed and split wood.
1 step-ladder.
1 16-foot ladder.
6 oil-cans.

1 old water-cooler.
1 old wheelbarrow.
2 old shovels.
1 $\frac{1}{2}$ barrels cement.
 $\frac{1}{2}$ barrel plaster paris.
3 wooden buckets.

STORE-ROOM.

1 $\frac{1}{2}$ bars castile soap.
6 papers tripoli.
6 sheets crocus cloth.
6 sheets emery-cloth.
2 scrub-brushes.
2 whitewash-brushes.
 $\frac{1}{2}$ box brown soap.
12 chamois skins.
5 pounds sponge.
2 feather dusters.
4 corn brooms.
6 extra lamps.
6 hame-straps.

6 extra traces.
6 papers stove-blackening.
6 dozen boxes matches.
20 pounds waste.
4 papers lampblack.
3 pounds oxalic acid.
6 balls wick.
2 currycombs and 2 brushes.
1 shovel.
1 pitchfork.
2 steam-gauges, in bad order.
1 stable-broom.

Inventory of stock and fixtures of Engine Company No. 2 up to July, 1878.

WASHINGTON, D. C., ———, 1878.

SIR: I most respectfully submit the following list of property of No. 2 Engine Company:

One two-story brick house, in a very dilapidated state, on D street near Twelfth street, northwest, with hose-tower attached.

ENGINE DEPARTMENT.

1 Clapp & Jones engine.
1 Gould heater.
1 Pruentz relief-valve.
1 spring-bottom oiler.
2 spanners.
2 monkey-wrenches.
1 screw socket-wrench.
2 socket-wrenches.
1 5-gallon machine-oil can.
1 5-gallon coal-oil can.
2 gallons machine-oil.
1 1-gallon machine-oil can.
12 sheets emery-cloth.
2 pair wire pliers.
1 vise and bench.
1 hammer.
2 cold-chisels.

1 gallon axle-oil and can.
2 flat files; 2 half-round.
1 soldering-iron.
1 pair of Key's pipe-tongs.
1 screw-jack.
1 cord of pine wood.
3 tons of soft coal.
2 pounds of engine-packing.
1 pound of sheet-gum packing.
12 pounds of cotton waste.
5 pounds of whiting.
1 pound of oxalic acid.
6 papers of tripoli.
1 extra engine-pole.
2 hand-lanterns.
1 clock.

HOSE DEPARTMENT.

1 hose-carriage.
 2 900 feet of canvas hose.
 5 section-heads, repairing.
 2 axes, long handles.
 3 short-handle axes.
 2 ladder-straps.
 2 Jones couplings.
 2 reducers.
 1 Y-connection.
 3 leather pipes.
 6 nozzles.
 2 gum pipes.
 2 patent spray-nozzles.

1 patent cut-off nozzle.
 2 old brass pipes.
 1 pair of shafts.
 1 pipe-holder.
 2 Johnson pumps.
 1 smoke-cap.
 4 hand-lanterns, two of them old.
 1 reflecting lantern.
 100 feet of picket-line rope.
 200 feet of cotton life-line.
 2 gum buckets.
 1 extra carriage-pole.
 1 carriage-jack.

HOSTLER'S DEPARTMENT.

4 horses, not very serviceable.
 2 sets of double harness, new.
 2 sets of double harness, old.
 4 extra bits.
 3 old collars.
 4 extra traces.
 8 halter-straps.
 2 pad riding-saddles, one of them old.
 1 hand clipping-machine.
 1 pair of clipping-shears.
 2 currycombs.
 2 corn mane-brushes.
 2 hair horse-brushes.
 2 whips.
 1 old bridle.
 1 harness-punch.
 4 old collar-pads.
 2 sets of pole-straps and improved snaps.
 2 old sets of pole-straps.
 2 old sets of breast-straps.
 40 bushels of oats.
 800 pounds of hay.

700 pounds of straw.
 6 bushels of mixed feed.
 1 peck of flaxseed meal.
 1 peck of salt.
 4 new horse-blankets and hoods.
 4 very old blankets and hoods.
 1 cutting-box.
 1 feed-bin.
 2 pitchforks.
 1 $\frac{1}{2}$ -peck measure.
 2 knee-pads.
 4 hitching-straps.
 1 dozen assorted snaps.
 1 set of lead bars.
 2 water-buckets.
 4 surcingles.
 2 stable-brooms.
 2 shovels.
 4 collar-pads.
 1 feed-sieve.
 4 horse-troughs.

HOUSE DEPARTMENT.

12 iron bedsteads.
 10 hair mattresses.
 12 shuck mattresses, old.
 11 feather pillows.
 6 old hair pillows.
 30 bed-spreads.
 30 blankets.
 24 pillow-slips.
 24 sheets.
 2 good carpets.
 50 yards of linen crash.
 12 yards of stair-carpet.

12 yards of stair oil-cloth.
 10 gum spittoons.
 12 cuspidores, spittoons.
 2 clocks.
 21 arm-chairs.
 2 stoves and pipes.
 1 stove in hose-tower.
 2 coal-hods.
 1 center-table and cover.
 1 secretary.
 7 window-shades.
 1 looking-glass.

MISCELLANEOUS.

40 feet garden-hose.
 3 extra glass water-gauges.
 1 pair shears.
 6 chamois skins.
 1 pound of sponge.
 6 bars of castile-soap.
 20 bars of brown soap.
 6 bars of carbolie soap.
 3 boxes of Young's detergent.
 3 papers of stove-polish.

$\frac{1}{2}$ gross of parlor matches.
 2 scrub-brushes.
 2 paint-brushes.
 6 lamp-wicks.
 1 copper-bottom water-boiler.
 1 coffee-boiler.
 4 tin cups.
 2 hickory brooms.
 8 corn brooms.
 1 cross cut-saw.

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1 hatchet.
1 jack-plane.
2 pounds of nails.
1 dozen window-lights.
1 backgammon-board.
4 tons of hard coal.
2 coal-hods.
2 poker.
2 dust-pans.
2 dust-brushes.
2 stove-brushes.
2 feather dusters.
1 water-pot.

3 door-mats.
1 hair-brush.
1 comb.
2 stove-shovels.
2 wash-stands.
1 bath-tub.
1 Bible.
1 blank roll-book.
1 alarm and 1 day book.
1 requisition-book.
1 step-ladder.

Library containing 80 bound books and
179 unbound books.

List of members of No. 2 Engine Company.

Name.	Age.	Occupation.	Residence.
William A. Shedd, foreman	36	Machinist	317 Twelfth street, n. w.
Samuel Dawes, engineer	38	Carpenter	614 H street, n. w.
Thomas Martin, fireman	38	Blacksmith	316 Twelfth street, n. w.
Samuel Edwards, hostler	31	do	1606 Sixteenth street, n. w.
Charles Mead, private	36	Carpenter	451 I street, n. w.
Jos. Lenman, private	22	Blacksmith	503 Eleventh street, n. w.
John Brosnan, private	24	Paver	110 L street, n. w.
Frank Snyder, private	34	Hostler	2318 M street, n. w.
John Maddox, private	39	Wheelwright	920 C street, n. w.
William Mahoney, extra man	30	Laborer	149 Fayette street, Georgetown.

Respectfully submitted.

WM. A. SHEDD,
Foreman.

MARTIN CRONIN, Esq.,
Chief Engineer of District of Columbia Fire Department.

Inventory of articles in No. 3 Engine-House.

ENGINEER DEPARTMENT.

1 single pump upright-tank engine, in first-class order.	Amoskeag	1 Walton heater.
7 wrenches, assorted.		3 extra wheels.
2 oil-cans.		1 small ax.
1 socket-wrench.		1 gallon coal-oil.
1 poker and shovel.		2 tons splint coal.
1 hammer.		½ cord sawed and split wood.
1 jack-screw.		1 gunn bucket.
1 large spanner for air-vessel.		1 large coal-oil can.
1 thaw-cock.		1 feather duster.
10 feet of steam-hose.		1 chamois-skin.
2 lamps.		3 gallons machine-oil.

HOSE DEPARTMENT.

1 hose-carriage, complete.		200 feet life-line.
1900 feet of canvas hose, in bad condition.		200 feet of street-rope.
500 feet of leather hose, in bad condition.		2 fire-axes.
2 gum pipes.		2 lanterns.
2 leather pipes.		1 jack-screw.
2 Jones reducer.		1 pipe-holder.
2 Johnson pumps.		1 canvas apron.
2 Jones branch couplings.		1 plug-key.

HOSTLER DEPARTMENT.

4 horses, 1 in good condition, 3 in bad.	1 shovel.
2 sets of double harness, in good condition.	1 stable broom.
1 set of double harness, in bad condition.	1 horse-bucket.
5 old collars.	2 whips.
4 pole-straps.	1 large feed-bin.
2 riding-saddles.	15 bushels oats.
2 old bridles.	1 bushel bran.
2 curry-combs and brushes.	800 pounds hay.
2 pitchforks.	600 pounds straw.
4 horse-blankets, new.	100 pounds cut hay.
4 horse-blankets, old.	$\frac{1}{2}$ peck salt.

HOUSE AND FURNITURE.

24 chairs, condition good.	20 sheets, old.
3 center-tables, condition good.	6 towels, good.
2 table-covers, condition good.	40 yards linen crash, old.
2 rugs, condition good.	1 looking-glass, good.
2 carpets, worn.	12 spittoons, old.
2 stair carpets and rods, bad.	2 brooms, good.
20 mattresses, old.	2 mats, old.
12 bedsteads, good.	1 striking apparatus.
10 bed-spreads, new.	1 communicating instrument.
10 bed-spreads, old.	1 writing-desk.
20 pillow-slips, old.	2 folding chairs.

STORES ON HAND.

12 pounds Castile soap.	6 mops.
15 pounds brown soap.	1 saw, new.
6 chamois-skins.	4 bottles of King's oil.
2 dozen papers tripoli.	1 watering-pot, new.
$\frac{1}{2}$ pound acid.	100 feet of hemp rope.
4 lanterns.	2 shovels.
$\frac{1}{2}$ gallon castor-oil.	8 pounds waste.
2 long-handle brushes.	2 scrub-brushes.

List of members of Engine Company No. 3.

Name.	Age.	Occupation.	Residence.
George Spilman, foreman	33	Laborer	221 Third street, n. e.
William Leeman, engineer.....	41	Machinist	122 B street, n. e.
Frank Lewis, fireman	37	Painter	Fifth street between C and D streets, n. e.
Michael Kane, hostler	34	Hostler	317 B street, n. e.
Walter Cox, private	32	Carpenter	North Capitol street, between B and C sts.
James Frazier, private.....	38	Sailor	807 East Capitol street, n. e.
William Kirkpatrick, private..	32	Carpenter	51 D st., between Delaware av. and First st.
Jerry O'Leary, private	29	Blacksmith	626 North Capitol street, n. w.
John Kane, private	29	Plasterer	19 Second street, n. e.

Respectfully submitted.

GEORGE SPILMAN,
Foreman.MARTIN CRONIN,
Chief Engineer District of Columbia Fire Department.

Inventory of No. 4 Engine Company.

WASHINGTON, D. C., October 25, 1878.

SIR: I most respectfully submit the following list of property of No. 4 Engine Company up to July 1, 1878.

One two-story brick house, located on Virginia avenue, between Fourth-and-a-half and Sixth streets southwest, with stable and hose-tower attached.

ENGINEER'S DEPARTMENT.

1 third-class Silsby engine.	1 three-gallon oil-can.
1 Gould heater.	7 spanner-wrenches.
1 goose-neck.	2 socket-wrenches.
2 blind caps.	1 tube-wrench.
2 extra wheels.	1 T wrench.
1 extra pole.	2 slip-joints.
2 monkey-wrenches.	1 pipe-wrench.
2 pole-straps.	1 shovel.
5 lamps.	1 slice-bar.
2 small oil-cans.	1 relief valve.
1 reducer.	1 vise.
1 ten-gallon oil-can.	2 pole-snaps.
3 files.	1 washer-cutter.
1 hammer.	1 wood-ax.
1 brace.	1 flue-wrench.
1 extra wrench.	1 whip.
1 pair plyers.	

HOSTLER'S DEPARTMENT.

4 horses, in good order.	2 old headstalls.
2 new sets harness.	2 curry-combs.
2 old sets harness.	2 horse-brushes.
4 hitching-straps.	3 collars.
2 old bridles.	1 mane-brush.
6 hame-straps.	2 pad-saddles.
2 pair clipping-machines.	3 collar-pads.
1 harness-punch.	7 snaps.
3 halter-chains.	4 old halters.
1 feather duster.	1 set single harness.
1 cutting-box.	2 pitchforks.
4 horse-hoods.	2 extra pole-snaps.
4 horse-blankets.	1 Dutch collar.
2 stable-buckets.	1 half-peck measure.

HOSE DEPARTMENT.

1 hose-carriage, complete.	4 fire-axes.
2,400 feet canvas hose.	1 gun bucket.
200 feet old leather hose.	4 half traces.
3 branch-pipes.	2 pole-straps.
2 old branch-pipes.	1 foreman's lamp.
6 nozzles.	2 hose-carriage lamps.
1 relief-nozzle.	5 ladder-straps.
1 pipe-holder.	2 pole-snaps.
50 feet garden-hose.	2 Johnson's pumps.
pair shafts.	4 figure-8 rings.
jack-screws.	4 extra half traces.
1 pair sleeve breeches.	1 carriage apron.
1 carriage-whip.	1 goose-neck.
200 feet street-line.	1 spray-nozzle.
1 reducer.	12 spanners.
50 feet life-line.	

FURNITURE AND BEDDING.

12 iron bedsteads.	2 hair-combs.
22 mattresses.	2 hair-brushes.
55 sheets.	1 water-cooler.
42 pillow cases.	1 frame of rules.
34 blankets.	1 alarm gong.
20 towels.	2 old carpets.
30 chairs.	7 pieces old oil-cloth.
21 spittoons.	10 window-shades.
2 time clocks.	1 table-cover.
3 stoves.	3 pieces zinc.
3 looking-glasses.	1 wash-stand.
1 writing-desk.	3 coal-hods.
3 scrub brushes.	1 inkstand.
3 feather dusters.	4 pictures.
3 floor mops.	2 dust-brushes.
1 bath-tub.	1 dust-pan.
1 watering-pot.	5 gas globes.
1 wisp broom.	1 table.

STORES ON HAND.

20 pounds cotton waste.	4 tin cups.
24 sheets emery cloth.	11 lamp-wicks.
6 papers tripoli powder.	1 lamp-globe.
1 pound oxalic acid.	4 chamois-skins.
4 pieces sponge.	1 ton hard coal.
4 bars castile-soap.	1 cord sawed and split wood.
15 bushels oats.	$\frac{1}{2}$ ton splint coal.
500 pounds hay.	1 gallon lard-oil.
400 pounds straw.	40 bars brown soap.
$\frac{1}{2}$ gallon arnica.	$\frac{1}{2}$ peck salt.
30 pounds flaxseed meal.	10 pounds packing.

EXTRA APPARATUS.

1 second-class Amoskeag engine, complete.	1 fuel-cart, complete.
1 old truck, in bad order.	

List of members of No. 4 Engine Company.

Name.	Age.	Occupation.	Residence.
William T. Sorrell, foreman . . .	43	Mariner	412 Twelfth street, s. w.
Thomas G. Good, engineer . . .	36	Engineer	487 E street, s. w.
Levi Moling, fireman	34	Blacksmith	609 D street, s. w.
James Springman, hostler . . .	42	Hostler	Corner Maryland avenue and Sixth st., s. w.
F. H. Myers, private	38	Carpenter	1218 Union street, s. w.
William White, private	36	Brickmaker	124 Willow Tree alley, s. w.
William Ricks, private	27	Engineer	923 Sixth street, s. w.
D. E. Craven, private	27	Mariner	229 Tenth street, s. e.
John H. Casteell, private . . .	31	Machinist	711 Eighth street, s. e.
Thomas J. Coffey, private . . .	23	Laborer	306 C street, s. w.
Charles Boss, private	27	Scroll sawer	503 G street, s. w.

Respectfully submitted.

WM. T. SORRELL,
Foreman No. 4 Engine Company.MARTIN CRONIN, Esq.,
Chief Engineer District of Columbia Fire Department.

Inventory of No. 5 Engine Company.

WASHINGTON, D. C., ———, 1878.

SIR: I most respectfully submit the following list of property of No. 5 Engine Company up to July, 1878.

One two-story brick house, High street, between Bridge and Grace streets, Georgetown, with large bell and hose tower attached.

ENGINEER'S DEPARTMENT.

1 double-pump second-class Amoskeag engine, complete.	4 lanterns.
1 Basshor coil-heater.	2 old sets of crank-brasses.
1 Printye's relief-valve.	4 monkey-wrenches.
4 extra wheels.	4 chain half-traces.
2 squirt-cans.	2 pole-chains.
2 machine-oil cans	2 extra sets of grate-bars with extra centers.
4 gallons machine-oil.	1 grate pattern.
1 screw-jack.	8 new gum springs.
13 large files.	5 old gum springs.
11 small files.	2 extra glasses for water-gauge.
2 shovels.	$\frac{1}{2}$ gallon castor-oil.
1 slice-bar.	10 balls lamp-wick.
2 tube-scraper.	1 pound Selden's packing.
2 sets of Jones's sleeve connections.	10 pounds waste.
1 reducer.	4 pounds gum packing.
1 plug-thawer.	$\frac{1}{4}$ cord sawed and split wood.
1 hand-ax.	$\frac{1}{2}$ ton splint coal.
3 old spring clumps.	3 seat-cushions.
1 lead-rope.	2 brass pipes and nozzles.
1 brass plug.	1 extra nozzle.
1 old blow-off cock.	1 clock.
6 tube irons.	1 gong.
4 air-chamber spanners.	1 extra steam-gauge.
1 small cut-off valve.	1 register-gauge.
1 feather duster.	1 plug-key.
1 vise and bench.	1 pound tallow.
30 feet rope.	1 gallon coal-oil.
1 plug-wrench.	2 coal-oil cans.
32 old valve-springs	4 extra axle-nuts.
3 extra pump-cups.	2 open spring links.
8 old pump-cups.	5 pulleys.
10 wrenches.	

HOSE DEPARTMENT.

1 4-wheel hose-carriage with 1,400 feet of cotton-rubber lined hose.	2 extra single-trees with half-leather traces.
950 feet of extra cotton hose.	50 feet rope for tower.
350 feet of cotton hose, in bad condition.	1 fire-ax.
5 leather hose-pipes and nozzles.	3 sets of Jones hose connections.
1 cut-off nozzle.	2 extra springs.
4 spray-nozzles.	1 large nut-wrench.
1 pipe-holder.	1 leather goose-neck.
1 well-wheel for hose-tower.	1 large hose oil-can.
25 wooden pegs for hose-tower.	1 feather duster.
5 ladder-straps.	3 pipe-racks.
2 jacks.	1 tap.
4 lanterns.	1 seat-cushion.
1 reflecting-lamp.	2 spool-straps.
2 Johnson force-pumps.	4 spanners.
1 plug-wrench.	5 hose-patches.
1 plug-key.	2 fenders for hose-tower.
1 reducer.	1 extra brake-block.
1 gun bucket.	4 gun bumpers.
1 pair shafts.	1 smoke cap and box.
4 extra wheels.	200 feet cotton rope.
1 extra pole.	3 small pick-axes and scabbards.

HOUSE DEPARTMENT.

- | | |
|--|--------------------------------------|
| 1 fire-alarm gong. | 2 brushes. |
| 1 horse key and sounder, Schneider's improvement for releasing horses from their stalls by the stroke of the gong. | 2 book-cases with 160 bound volumes. |
| 12 iron bedsteads. | 12 lockers. |
| 22 mattresses. | 1 water-cooler. |
| 11 feather pillows. | 3 buckets. |
| 9 hair pillows. | 2 stoves and pipe. |
| 39 white double blankets. | 2 coal-hods. |
| 1 white single blanket. | 4 stove-brushes. |
| 3 gray blankets. | 2 small shovels. |
| 80 sheets. | 1 large shovel. |
| 32 pillow-slips. | 8 tin cups. |
| 19 towels. | 8 spoons. |
| 41 bed-spreads. | 1 coffee-pot. |
| 19 spittoons. | 1 bucket for sugar. |
| 12 chairs. | 1 bucket for coffee. |
| 1 bath-room oil-cloth. | 5 pounds sugar. |
| 2 stair-carpet. | 3 pounds coffee. |
| 1 stair oil-cloth. | 1 feather duster. |
| 16 brass stair-rods. | 2 hair dust-brushes. |
| 5 floor-mats. | 1 washer-cutter. |
| 1 clock. | 1 copper boiler. |
| 1 table. | 1 hand-saw. |
| 1 writing-desk. | 1 hatchet. |
| 16 window-shades and fixtures. | 1 step-ladder. |
| 1 looking-glass. | 3 company books. |
| 2 combs. | 3 blank books. |
| 2 pieces of zinc. | 1 requisition-book. |
| 2 squirt-cans. | 2 tons hard coal. |
| 1 bottle of ink. | 7 floor-mop handles. |
| 1 pair scissors. | 1 sprinkling-can. |
| 1 paper-cutter. | 60 feet street hose and pipe. |
| 7 scrubbing-brushes. | 2 whitewash-brushes. |
| 2 benches. | 1 dust-pan. |
| 3 fire-alarm keys. | 2 door-ropes with rings and hooks. |
| 2 inside keys. | 1 pair wire plyers. |
| 1 master key. | 1 bath-tub. |
| 8 floor-mops. | 1 washstand. |
| | 1 urinal. |
| | 1 water-closet. |

HOSTLER'S DEPARTMENT.

- | | |
|---|--|
| 4 horses. | 1 saddle. |
| 4 sets double harness, complete. | 4 extra bridles. |
| 1 Dutch collar. | 1 extra bit. |
| 8 horse-blankets. | 7 halter-stems. |
| 8 horse-hoods. | 1 halter-chain. |
| 1 clipping-machine. | 4 hitching-straps. |
| 2 buckets. | 1 hay-cutter. |
| 5 curry-combs. | 4 cans harness-oil. |
| 4 horse-brushes. | 1 head-halter. |
| 2 horse-scrapers. | 1 neck-halter. |
| 4 pitch-forks. | 1 single and double block. |
| 4 surcingle. | 100 feet of rope. |
| 1 fore bag. | 1 harness-punch. |
| 4 line chains. | 4 whips. |
| 1 extra collar. | 1 pair clipping-shears and comb. |
| 1 peck-measure. | $\frac{1}{2}$ pint oil origanum. |
| 1 horse-boot. | $\frac{1}{2}$ bushel salt. |
| 2 sets of improved pole-strap snaps and Fig. 8 rings. | $\frac{1}{2}$ pint arnica. |
| 4 old Fig. 8 rings. | $\frac{1}{2}$ pint sweet spirits of niter. |
| 2 old pole-strap snaps. | 5 collar-pads. |
| 1 watering-trough. | 2 extra pole-straps. |
| 1 old wagon. | 2 feed-bins. |
| 2 shovels. | 1 box for mixing feed. |
| 3 stable-brooms. | 2 mane-combs. |
| | 1 sifter. |

FEED.

20 bushels of oats.	$\frac{1}{2}$ bushel meal.
700 pounds hay.	1 bushel bran.
400 pounds straw.	$\frac{1}{4}$ bushel flax-seed meal.

STOREHOUSE DEPARTMENT.

12 papers eagle Tripoli.	10 sheets emery cloth.
4 bars Castile soap.	26 boxes matches.
3 pounds rotten-stone.	3 boxes axle-grease.
2 pounds stove-polish.	$\frac{1}{2}$ box brown soap.
5 pounds oxalic acid.	4 corn brooms.
5 pounds whiting.	6 chamois.
6 lamp-wicks.	8 lamp-globes.
1 pound sponges.	2 extra lanterns.
8 papers sapolio.	3 papers copper rivets.
6 lamp-burners.	1 brass cock.
10 pounds nails.	12 snap-hooks.
3 papers tacks.	2 pounds copper wire.
4 sheets crocus cloth.	

ASSISTANT CHIEF ENGINEER'S DEPARTMENT.

1 carriage.	2 lap-ropes.
2 horses.	1 extra bridle.
1 extra pair shafts.	2 horse-boots.
4 extra wheels.	1 whip.
1 lamp and globe.	2 extra breeching-straps.
1 lamp-rack.	1 old set leather half-traces.
1 reflecting lamp.	4 extra shaft-tags.
3 sets single harness, complete.	1 gum bit.
1 gum horse-cover.	1 extra bit.

List of members of Engine Company No. 5.

Name.	Age.	Occupation.	Residence.
Louis P. Lowe, foreman	29	Clerk	No. 133 Dunbarton street.
Edward Rhodes, engineer	39	Engineer	No. 13 Potomac street.
Jefferson D. Angell, fireman....	31	...do	No. 8 Potomac street.
James H. Mahomey, hostler	37	Carpenter	No. 14 Third street.
Albert Dodson, private	34	Laborer	No. 45 Fourth street.
James Cleaveland, private	36	Shoemaker	No. 168 Bridge street.
James T. Norris, private	34	Laborer	No. 245 Bridge street.
Churchill Huitt, private	31	...do	No. 2408 Virginia avenue.
James T. Greaves, private	30	Engineer	No. 130 Bridge street.
John W. Walker, disabled, private.	41	Bricklayer	Rosslyn, Va.
James Borroughs, extra man ..	27	Tinner	No. 27 Frederick street.

Respectfully submitted.

LOUIS P. LOWE,
Foreman No. 5 Engine Company.

MARTIN CRONIN, Esq.,
Chief Engineer District of Columbia Fire Department.

Inventory of No. 1 Truck Company.

WASHINGTON, D. C., July 1, 1878.

SIR: I respectfully submit the following list of property in charge of No. 1 Truck Company. This company occupies a two-story brick house, the property of the District of Columbia, located on Massachusetts avenue, between Fourth and Fifth streets, N. W.

TILLERMAN'S DEPARTMENT.

- | | |
|---|---|
| 1 hook and ladder truck, Babcock patent, of Chicago, Ill. | 1 wheel-jack. |
| 11 ladders of different lengths, including Chief Cronin's patent aerial ladder. | 1 broken truck-pole. |
| 1 platform to raise large ladder on. | 8 Johnson pumps. |
| 9 small fire-hooks. | 1 pair pliers. |
| 1 grapnel-hook with chain attached. | 2 chamois skins. |
| 3 hand-lanterns. | 2 pieces sponge. |
| 2 signal-lamps. | 4 large ladder-straps. |
| 4 crowbars. | 1 old hook and ladder truck, unfit for service. |
| 4 pitchforks. | 5 old ladders. |
| 2 gas-keys. | 1 shingle-bar. |
| 3 street-ropes. | 2 pitchforks. |
| 1 16-inch gong. | 6 small hooks. |
| 2 life-lines. | 1 one-horse hose-carriage. |
| 1 shingle-spade. | 600 feet leather hose. |
| 2 ladder-poles. | 2 leather hose-pipes. |
| 4 patent smokes. | 2 hose-straps. |
| 3 monkey-wrenches. | 1 pole for hose-carriage. |
| 2 wheel-wrenches. | 1 set single-trees. |
| | 1 section old cotton hose. |

HOSTLER'S DEPARTMENT.

- | | |
|---|------------------------------|
| 3 horses. | 4 good horse-blankets. |
| 2 old sets double harness. | 1 old horse-blanket. |
| 2 sets harness, chief's wagon. | 1 old gum horse-cover. |
| 1 old set single harness (hose-carriage). | 1 good horse-cover. |
| 1 pad-saddle. | 2 surcingles. |
| 4 extra collars. | 2 extra bridles with blinds. |
| 4 currycombs. | 5 halter-stems. |
| 2 new horse-brushes. | 1 revolving harness-punch. |
| 5 extra driving-bits. | 2 pieces castile soap |
| 1 mane brush and comb. | 2 pieces sponge. |
| 1 extra pair double reins. | 2 linen lap-cloths. |
| 1 pair hames (carriage). | 3 woolen lap-robies. |

BEDDING.

- | | |
|---------------------|----------------------------|
| 12 iron bedsteads. | 12 bed-spreads, worthless. |
| 23 mattresses. | 32 double blankets. |
| 13 feather pillows. | 7 single blankets. |
| 5 hair pillows. | 27 cotton sheets. |
| 12 old bed-spreads. | 28 cotton pillow-cases. |

FURNITURE.

- | | |
|---------------------------------------|----------------------------|
| 1 old carpet for bunk-room. | 1 looking-glass. |
| 1 old carpet for bath-room. | 2 stoves. |
| 1 old carpet for foreman's room. | 6 window-curtains. |
| 1 old carpet for hall-way and stairs. | 2 wooden benches. |
| 50 yards old linen crash. | 5 door-mats. |
| 13 brass stair-rods. | 25 globes for chandeliers. |
| 15 arm-chairs. | 1 chandelier. |
| 16 gum spittoons. | 2 stove-pokers. |
| 9 china spittoons. | 1 fire-shovel. |
| 1 office-desk. | |

STORES.

6 papers carpet-tacks.	1 quart ammonia.
5 bottles liniment.	3 corn brooms.
6 papers tripoli.	6 chamois skins.
19 lamp-globes.	1 pound sponge.
3 hose-pipe nozzles.	5 ax-handles.
6 boxes matches.	8 brass lanterns.
5 papers horse-powders.	4 dust-brushes.
4 cans soda for fire-extinguishers.	3 scrub-brushes.
$\frac{1}{2}$ gallon castor-oil.	12 sheets emery paper.
3 bars castile soap.	2 axes.
3 stable-brooms.	2 pair hinges.
1 quart machine-oil.	2 gallons coal-oil.
1 squirt-can.	1 paper stove-blackening.
1 pound copper rivets and burrs.	

MISCELLANEOUS ARTICLES.

2 coal-hods.	2 feather dusters.
50 feet small gum hose.	2 single blacks.
1 step-ladder.	1 hand-saw.
2 water-coolers.	1 water-boiler.
2 coffee-buckets.	1 dust-pan.
1 coffee-boiler.	2 whitewash brushes.
3 tin oil-cans.	4 fire-alarm-box keys.
1 wall-duster.	2 master keys.
2 paint-brushes.	1 hatchet.
1 hand-ax.	3 files.
1 requisition-hook.	2 dust-brushes.
3 plug-keys.	

List of members of Truck Company No. 1.

Names.	Occupation.	Residence.
Samuel D. Mackey, foreman.....	Clerk.....	313 I street, n. w.
Charles E. Merillat, tillerman.....	Plumber.....	740 Fourth street, n. w.
Alexander Savoy, hostler.....	Hostler.....	420 First street, s. w.
Henry F. Steele, private.....	Blacksmith.....	455 H street, n. w.
John Maker, private.....	Walter.....	923 Eleventh street, n. w.
Thomas R. Newman, private.....	Blacksmith.....	1118 New Jersey avenue, s. e.
William Beynon, private.....	Mariner.....	2416 M street, n. w.
Joseph H. Daniels, private.....	Jeweller.....	316 K street, n. e.
John E. Melson, private.....	Laborer.....	325 B street, n. e.
John F. Wahlron, private.....	Laborer.....	403 K street, n. w.
Robert Dickson, private.....	Laborer.....	304 K street, n. w.
James Sumr, private.....	Carpenter.....	150 F street, n. e.

Respectfully submitted.

SAM'L D. MACKEY,
Foreman Truck Company No. 1.

MARTIN CRONIX, Esq.,
Chief Engineer District Columbia Fire Department.

APPENDIX H 3.—*Report of fires in District of Columbia from November 1, 1877, to June 30, 1878.*

No. of fire.	Date.	Hour.		Box.	Style of building.	Cause.	How occupied.	Owner or occupant.	Location.	Damage.	Insurance.
		a. m.	p. m.								
1	1877. Nov. 4	2.15		315	3-story brick	Incendiary	Unoccupied	Barrett estate	Twenty-third st. and Pennsylvania ave., n. w.	\$500	\$500
2	Nov. 5	6.10		124	do	Children with matches.	Dwelling	S. Cobb	E street between 6th and 7th, n. w.	150	150
3	Nov. 7	10.58		135	do	Incendiary	do	E. C. Carrington	M street between 9th and 10th, n. w.	800	
4	Nov. 7	8.40		212	3-story frame	Lamp explosion	do	D. Brown	Corner 11th and M streets, n. w.	Slight	
5	Nov. 8	1.10		213	2-story frame	Incendiary	do	B. Cole	South Carolina avenue between 12th and 13th streets, s. e.	200	200
6	Nov. 8	6.30		321	2-story brick	Lamp explosion	do	R. Brown	Twelfth street between P and Q, n. w.	50	
7	Nov. 8			212	2-story frame	do	do	M. Alexander	Twelfth street between O and P, n. w.	75	
8	Nov. 10	7.54		112	2-story brick	False alarm	do	Adam Fisher	317 43 street, n. w.	25	
9	Nov. 10	11.35		37	do	Chimney	do				
10	Nov. 12	6.25		125	Sheds	Tar pot	Concrete works				
11	Nov. 14	3.05		121	3-story brick	Incendiary	Fancy store				
12	Nov. 15	4.00		123	do	False alarm	do				
13	Nov. 25	11.05		135	3-story brick	Incendiary	do	M. P. Lerch	Corner Delaware avenue and C st., n. e.	Slight	500
14	Nov. 26	10.05		712	do	Stove	do		714 7th street, n. w.		
15	Nov. 27	8.51		38	3-story brick	Incendiary	Dwelling	F. Libbey	Corner 2d and Frederick sts., Georgetown.	Slight	100
16	Nov. 28	1.41		38	do	do	do	S. Stover	2025 H street, n. w.	100	100
17	Nov. 30	2.35		131	2-story frame	Incendiary	do	J. Hopkins	Corner 21st and N streets, n. w.	200	200
18	Nov. 30	2.39		613	do	do	do				
1	Dec. 1	1.57		25	2-story frame	Stove	Restaurant	E. Dubant	Corner 7th and N streets, n. w.	200	200
2	Dec. 1	7.21		145	Brick church	Furnace	Church	Presbyterian	Fifteenth street between J and K, n. w.	200	200
3	Dec. 7	1.10		124	2-story frame	Incendiary	Barber shop	J. Dakenam	Eighth street near E, n. w.	100	100
4	Dec. 7	3.30		47	do	do	Stables	J. Desmond	G street between 2d and 3d, s. e.	100	100
5	Dec. 8	1.40		312	3-story brick	Furnace	Dwelling	J. Bowen	G street between 21st and 22d, n. w.	Slight	
6	Dec. 8	4.15		52	2-story frame	Unknown	Stable	E. Weitzel	Second street e., near Pennsylvania ave.	500	500
7	Dec. 10	6.05		72	do	Coal oil	Dwelling	E. Downs	Georgetown	Slight	
8	Dec. 11	2.40		212	1-story frame	Incendiary	Restaurant		Corner 10th street and Rhode Island ave.	2,500	2,500
9	Dec. 13	5.15		125	do	Chimney	do				
10	Dec. 17	3.12		315	Tar pot boiling over	do	Stable	J. O'Neal	B street between 14th and 15th, n. e.	300	
11	Dec. 20	5.44		317	False alarm	do	Dwelling	R. Browning	B street between 6th and 7th, s. e.	Slight	
12	Dec. 24	7.02		621	2-story frame	Incendiary	do				
13	Dec. 24	7.10		513	do	Coal-oil lamp	do				
14	Dec. 25	8.20		63	do	do	do				
15	Dec. 28	12.30		28	*	do	do				
1	1878. Jan. 2			315	2-story frame	Unknown	Dwelling	M. Connors	Alley, 23d L. and M streets, n. w.	100	
2	Jan. 8	9.15		53	3-story brick	Stovepipe	do	E. Jones	Corner 2d and C streets, n. e.	150	150
3	Jan. 9	3.20		71	2-story frame	Unknown	do	J. E. Cox	Georgetown	100	100
4	Jan. 9	12.05		47	2-story frame	Incendiary	do	George Mattingly	E street between 6th and 4th, s. w.	100	100
5	Jan. 10	10.44		25	do	Stovepipe	do	E. Jackson	L street between 6th and 7th, n. w.	100	100
6	Jan. 11	2.40		73	do	Lamp explosion	do			150	
7	Jan. 12	9.40									

* fire in county.

† Same fire in county.

APPENDIX H 3.—Report of fires in District of Columbia from November 1, 1877, to June 30, 1878.—Continued.

No.	Date.	Time.	Box.	Style of building.	Cause.	How occupied.	Owner or occupant.	Location.	Damage.	Insurance.
7	1878. Jan. 17	a. m. 2.35	143	2-story frame	Chimney	Dwelling	J. Seames	Alley between 13th and 14th, G and H streets, n. w.	\$250	.....
8	Jan. 17	6.30	137	do	Lamp explosion	do	H. Conover	L street between 9th and 10th, n. w.	Slight	.....
9	Jan. 22	8.15	521	do	Candle	do	.....	Eleventh street e., near Ridge street, s. w.	Slight	500
10	Jan. 23	10.45	41	do	Stovepipe	do	.....	Pennsylvania avenue near 14th street, s. w.	Slight	\$500
11	Jan. 27	7.50	40	do	Unknown	do	E. Jackson	Virginia ave. between 13th and 14th sts., s. w.	Slight	.....
12	Jan. 28	6.45	23	do	Lamp explosion	do	.....	L street between 14th and 15th, n. w.	Slight	.....
13	Jan. 28	2.15	25	do	Incendiary	Unoccupied	.....	2615 1/2 street, n. w.	150	500
14	Feb. 8	3.17	315	2-story frame	do	Dwelling	E. Hughes	B street near South Carolina avenue	200	500
15	Feb. 15	12.40	521	do	Provision store	do	Q. S. B. Wall	Seventh street near Maryland	700	700
16	Feb. 21	6.44	58	4-story brick	Stove	Society hall	Gaillean Fishery men.	Fourth-and-a-half street and Pennsylvania avenue.	500	500
17	Feb. 25	2.15	14	do	Incendiary	Food store	W. M. Galt	Indiana 2 1/2 mile and 1st street, n. w.	Slight	.....
18	Feb. 26	3.25	12	2-story brick	do	Unoccupied	J. Lomax	Corner 14th and G streets, n. w.	Slight	600
19	Mar. 9	2.30	216	3-story brick	Stovepipe	Dwelling	.....	Pennsylvania avenue between 23d and 24th streets, n. w.	600	600
20	Mar. 15	4.55	315	2-story frame	do	do	.....	Hughes alley, 24th and 25th sts., n. w.	500	500
21	Mar. 16	11.10	47	2-story frame	Incendiary	Dwelling	J. Gorman	Back of Le Droit Park	150	.....
22	Mar. 16	1.45	315	do	Candle	Stable	.....	A street between 1st and Delaware ave.	.....	.....
23	Apr. 2	9.15	61	do	Incendiary	do	.....	M street between 1st and 2d n. w.	Slight	800
24	Apr. 4	10.15	47	do	Chimney	Dwelling	Washington Brick Company.	Fourteenth street e. and Boundary	Slight	.....
25	Apr. 7	8.00	28	3-story brick	False alarm	Brick kiln	H. C. Fowler	Third street between K and L, s. e.	Slight	.....
26	Apr. 18	12.40	37	Frame sheds	Accident	Shed	.....	O street between 1st and North Carolina avenue, n. w.	50	.....
27	Apr. 20	12.45	521	do	Incendiary	Stable	.....	Corner 7th and Pomeroy streets	1,000	500
28	May 6	11.48	134	Frame	Incendiary	Grocery	C. McKeeny	Corner 8th and E streets, n. w.	1,000	1,000
29	May 22	2.10	24	Frame	do	Bar-room	.....	Corner 25th and K streets, n. w.	1,000	1,000
30	May 27	4.40	124	1-story brick	Unknown	Grocery	Washington Brick Company.	Corner 14th street and Boundary, n. e.	1,000	1,000
31	May 30	12.25	71	do	Incendiary	Brick kiln	.....	Sampson street	200	100
32	May 31	10.00	613	Frame	Accident	Unoccupied	P. Rougan	Cherry street, Georgetown	500	500
33	June 11	8.15	121	2-story frame	False alarm	do	P. Berry	.....	.....	.....
34	June 15	1.05	216	2-story frame	Incendiary	do	.....	.....	.....	.....
35	June 21	3.00	721	4-story brick	do	do	.....	.....	.....	.....
36	June 21	8.45	73	do	False alarm	do	.....	.....	.....	.....
37	June 25	8.40	512	do	False alarm	do	.....	.....	.....	.....

* Test alarm by fire commission.

† Girl badly burned.

* Test run by president of the board.

APPENDIX H 4.

OFFICE FIRE-ALARM TELEGRAPH,
Washington, D. C., November 1, 1878.

GENTLEMEN: In compliance with your request of the 18th ultimo, I have the honor to present, through the board of fire commissioners, a detailed report of the transactions and expenditures of the fire-alarm telegraph from October 31, 1877, to July 1, 1878, together with an estimate of the amount required for its support for the fiscal year ending June 30, 1880. Also, some recommendations for increasing the efficiency of same.

The expenses of the telegraphic service for the eight months covered by this report have been as follows:

Salary paid one superintendent	\$1,000 00
Salary paid two operators, \$800 each	1,600 00
Battery chemicals.....	691 76
One electro-mechanical gong.....	250 00
New signal-box keys	33 75
Office rent	240 00
General and special repairs of lines, &c.....	334 43
Gas-light	62 35
Fuel.....	23 25
Repairing wagon.....	55 00
Washing for office.....	16 00
Blacksmithing.....	12 63
Stationery.....	9 65
Ice (for May and June).....	3 05
Sundry supplies for office	6 83
Total	4,338 70

It is gratifying to be able to report that the current expenses of the department have been kept below the estimates for the same, and that during the time covered by this report, the telegraph performed its functions faithfully and well. Indeed, I might add in this connection, that since the introduction of our present system, to the closing date covered by this report, during which time 425 alarms were struck, not a single failure occurred.

During the eight months covered by this report 75 alarms of fire were transmitted by telegraph to the fire department, as follows: November, 18; December, 15; January, 12; February, 6; March, 4; April, 6; May, 7; June, 7; total, 75. Showing a decrease of 32 alarms for the corresponding months of last year.

There are 78 fire-alarm stations, at which automatic signal-boxes are located and in direct connection with the central office, and thence communicating automatically with all the engine-houses and truck companies of the fire department, and with the alarm-bells in some of the churches. The wires connecting these several instruments with the central office are mostly supported upon house-tops, running through and over a large portion of the populated parts of both Washington and Georgetown, and are not less than 125 miles in length, all charged and worked by a battery of some 400 cells.

There are also eight police stations which are designated as fire-alarm stations, but which are not connected telegraphically with, nor under the control of the fire-telegraph. When these are used for the purpose of transmitting alarms of fire, the dispatch is sent to police headquarters and thence communicated verbally through a speaking-tube to the operator in charge at the fire-alarm office, and then sent out through our central office instruments to the fire department, causing, under the

most favorable circumstances, more delay than is desirable, and, in comparison with the rapidity of our system, a ruinous waste of precious time.

The telegraph, in all its details, is in good working order, but the line of poles on which the several wires are supported known as the "Georgetown" circuits will, ere the close of the fiscal year ending June 30, 1880, have to be replaced with new poles. These poles are very small, and were set in the year 1872, and are rapidly decaying at the bottom, and are too short to admit of being reset; and hence in the estimates below will be found a sum specified for that purpose.

To defray the expenses of this department during the fiscal year ending June 30, 1880, upon the basis of the present force, and as the lines now run, it will be necessary to provide:

Salary for one superintendent	\$1,500
Salaries for two operators, at \$1,200 each	2,400
Battery supplies	1,500
General repairs	700
Office rent	360
Gas-light	160
Fuel	40
Ice	20
Washing	30
Blacksmithing	40
Contingent expenses	200
Rebuilding Georgetown circuits	900
Total	7,850

To promote the general usefulness of the fire-alarm telegraph, and to increase the efficiency of the same, fire-alarm boxes should be located at or near each of the following-named places, to wit:

First street and Indiana avenue, Third and G streets, First and K streets, Fifth and S streets, Tenth and V streets, Tenth and M streets, Fourteenth street and Rhode Island avenue, Tenth street and Louisiana avenue, Fourteenth street and Ohio avenue, Twelfth and F streets, Tenth and E streets, Fifteenth and S streets, Seventeenth and T streets, Twentieth and P streets, Eighteenth and L streets, Twenty-fourth and M streets, Twenty-fifth and I streets, Virginia avenue and E street, Eighteenth and H streets, and Sixteenth-and-a-half and H streets, all in the northwestern section of the city; also at Maryland avenue, Eighth and D streets, northeast; Second and F streets, northeast; Fifth and B streets, southeast; Fifth street and Virginia avenue, southeast; Eleventh and N streets, southeast; Eighth and G streets, southeast; Thirteenth and E streets, southeast; South Capitol and N streets, south; the Agricultural Department; Twelfth-street wharf; L street between Fourth-and-a-half and Sixth streets, southwest; Abbott School building, southwest; Second and D streets, southwest; and one each for the first, second, fourth, fifth, sixth, seventh, and eighth police precinct stations; making forty additional signal-boxes for Washington; also, seven for Georgetown, to be located as follows: Corner of Green and Gay streets, corner of Congress and Dunbarton streets, corner of Eighth and Market streets, corner Second and Warren streets, corner of Bridge and Frederick streets, corner of Potomac and Water streets, and corner of Monroe and West streets. The greater part of the expense for an increase in the number of boxes would be the purchase of the boxes themselves, as but little additional wire would be necessary, from the fact that when the new telegraph was erected, some three years since, it was then well known that additional signal-stations were even then much-needed, but, owing to the limited appropriation, could not at that time be sup-

plied; but the circuits were run with the idea in view of increasing the signal-stations at an early date, with but little outlay for wiring.

I therefore recommend the purchase of 47 signal-boxes at an early date, believing that property-owners in the several localities named are entitled to and should have the protection of our fire-alarm service.

In my annual reports for several years past I called the attention of your predecessors to the necessity of an increase in the working force of the fire-alarm service, but, owing probably to the fact that the commissioners were holding positions under a temporary form of government, no action was taken upon the subject. I respectfully call your attention to the following facts: Two operators are required, in keeping the office open day and night, to work *twelve hours* each, daily, every day in the year, including Sundays and holidays, and when not on duty in the office are often obliged to go with me to repair broken wires, so that, as a matter of fact, both they and myself often work *fifteen or sixteen hours per day each*. We do not complain of the excessive labor, but it is my duty to inform you that with the increasing age of the lines more and more labor is required each successive month to keep them in repair.

As already stated, we have about 125 miles of wire running mostly over the tops of houses, and in many places in near proximity to private telegraph and telephone lines, which often get in contact with ours, causing us much trouble and constant labor to see that our lines are in working order. Besides which, we have no less than 90 instruments of one kind and another outside of the central office scattered all over both cities, which must be watched over and kept in readiness for use at all times; also a battery of some 400 cells, which requires no little labor and much watching. All this and much more that I might mention has to be performed by three men.

It is true that, when extraordinary trouble ensues from storms and the like, requisitions are made for extra help to repair the damage; but I submit that it would be far better, and in the long run much cheaper, to put on a larger force. Hence I request the appointment of one additional operator and one repair-man to assist in this important service, believing it to be in accord with the best interests of the department to keep a force sufficient to keep the lines in perfect order all the while, and thus prevent premature deterioration.

Should these additional employés be furnished, a further sum of \$1,920 should be added to the above estimates for the ensuing year; \$1,200 for the operator, and \$720 for the repair-man, making the total estimate \$9,770 for the year.

In conclusion, I desire to express my hearty appreciation of the efficient services of the two operators, Messrs. Richards and Noyes, who have performed their part of the work with a true and unselfish devotion to the best interests of the District.

I have the honor to be, gentlemen, your obedient servant,

HENRY R. MILES,

Superintendent Fire-Alarm Telegraph.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

I.—REPORT OF THE ATTORNEY.

OFFICE OF THE ATTORNEY
FOR THE DISTRICT OF COLUMBIA,
November 1, 1878.

GENTLEMEN: Your circular requesting a report of the transactions of this office was duly received.

The partial report of July was made for the purpose of bringing to your notice some idea of the business of the office, in connection with the question of compensation, in which very little was said as to the details of business necessary for the general information of the Commissioners. I will now take the subject up from the date of my entrance upon the duties of the office, November 1, 1877.

The last report of my predecessor brought the current of the business to that date. I will so far continue his report as to briefly note the further fortune of the cases spoken of by him as then undisposed of, in which further action has been had.

1. The first case is that of Campbell. This was restored to the calendar. The court held that it was a proper case for reference under the rule authorizing the court to refer cases *sua sponte*, and referred it. The case has since been argued, but the referee has not yet reported his finding.

2. The Murtagh case was not disposed of by the former trial. It was taken by plaintiff to the general term on his exceptions, argued and submitted, and not yet decided. There is in it one question of much gravity arising on the instructions of the court to the jury given as prayed for by the defendant.

3. The Strong cases. The evidence on both sides was printed, making some 800 pages. After full presentation, the special auditor reported in favor of the plaintiff the sum of \$32,958.41, with interest from December 1, 1874.

On coming in of the report both parties excepted, under an old Maryland statute. The issues thus formed were to be tried by a jury, and the case was continued from the 17th of July to September 10 for trial. On attempting to resume it grave difficulties arose, growing mainly out of the gross and continual intoxication of the judge holding the court. In this condition a written stipulation was made by parties and counsel, at the earnest request of the plaintiff and his counsel, in effect to withdraw from the trial, and that any order made by the court in the case thereafter should be set aside. At the last moment the plaintiff violated this contract, proceeded *ex parte*, and took a verdict for \$130,000. The proper steps were taken to secure a review of that trial, and to enforce the stipulation referred to. The undersigned feels no apprehension as to the result.

Of the cases pending in the general term, that of Dant, for injuries from a fall into an excavation, resulted in reversing the judgment against the District. At the present term of the circuit court, under instructions, a verdict was returned for the defendant *pro forma*.

The case of Young also, for a similar injury, the judgment was reversed, and the case is now set for trial at the present term.

The case of Schneider, for special damages to property, was stricken from the calendar.

In the case of Welch, to restrain the collection of water-tax, decision was for the District.

In Bartlett against the District, my predecessor's demurrer to the declaration was overruled, and I have filed pleas.

The case of Washington and Georgetown Railroad Company against the District stood on demurrer, and resulted as in the last case.

The cases of Chinn, Meredith, and Hine against the District were cases in which I was concerned for the plaintiffs. General Birney kindly continued to look after the cases for the District, and succeeded in them all.

In the case of Baltimore and Potomac Railroad Company against Gallaher, Loane & Co. and the District, the decree of the court against the defendants was reversed.

The case of Downey against the District was decided in favor of the defendant.

In the case of Chuss against the District, the judgment of the circuit court against the defendant was affirmed by the general term, and case taken on error to the Supreme Court of the United States by me. Two important questions are involved in this case.

In the case of the District of Columbia against Lord, the appeal taken by defendant was dismissed.

In the case of District of Columbia against Gavin, decree reversed and bill dismissed.

The cases of Hibb and Elliot against the District were decided in favor of the defendant.

In the cases of District of Columbia against Keyes and Thompson the appeals were dismissed.

In the case of the property-owners of Sixth street against the District the decree of the court below reversed, and plaintiffs gave notice of their intention to appeal to the Supreme Court of the United States. Of this matter it may be said that the fears of the property-owners have proved utterly groundless. There is not a more orderly place in the city, nor one less offensive to the eye.

Many cases have been tried in the circuit court, with alternate success and reverse. Most of them are to be reviewed on exceptions.

Many cases have also been tried in the equity court, and are on their lingering way to the upper courts. Four cases were commenced to subject to sale lands purchased by the District at tax sale under the statute of March 3, 1877, all of which resulted favorably. I have heretofore, for grave reasons made known, desired a change in that statute which I deem of the utmost importance, as affecting the titles of real estate. This provision will be contained in the draught of a general bill now in preparation. By a not exact estimate, to execute the provisions of the statute referred to would require the institution of, say, 3,000 cases, which would call for the labors of a dozen competent law clerks for years, an advance of cash for costs of from thirty to forty thousand dollars, a large increase of clerical force in the courts, and a wide-sweeping ruin to the property-owners of the District.

In view of all the consequences which are here suggested, I beg to propose that Congress be asked by law to provide that for all general taxes in arrear, for non-payment of which these sales have been made, and perhaps for all in arrear to the current year, the owners shall be permitted to redeem and be fully discharged from all penalties and forfeitures, upon payment of the original taxes and 6 per cent. interest from the time they were severally due. This would be a large relief, one of real beneficence, almost as much needed by the District itself as by the sorely-distressed small property-owners within its borders.

In the criminal court 41 cases on appeal have been tried, and fines to the amount of \$1,256.74 collected.

In the police court 3,739 cases have been tried.

Thirty-seven new civil cases for and against the District have been commenced.

There are now pending 370 cases, to which the District is a party, in the various courts.

In the equity court	175
In the circuit court	113
In the criminal court	62
In the general term	14
In the United States Supreme Court	6

The cases of Mattingly and Shoemaker, pending in the Supreme Court of the United States, and argued on most elaborate briefs at the close of the last term, are, by an order of the court, to be reargued on the 21st of the present month. The final disposition of these cases will, it is hoped, help to relieve the District of much legal strife.

Many briefs have been prepared in cases not yet disposed of. The printed matter of all my briefs comprises about 200 pages. The preparation of these has been a serious labor.

The very large trial calendar of the various courts, in which the District cases have no preference, prevents my bringing them to trial as early as I would be glad to.

I believe I have been ready in every case as it was reached, and have never asked for the continuance of a case, except the Strong case.

One of the embarrassments in the trial of the District cases arises from the fact that nearly all have arisen from transactions under the former government, to which we are all strangers, as well the Commissioners as the attorney for the District.

The foregoing shows but a part of the work performed in this office for the current year. In addition, I have myself furnished 110 written opinions, and my assistant 41. These together cover 408 pages of closely-written manuscript. In addition, I have examined probably 75 cases, and indorsed short opinions on the papers. The legislation of the last session of Congress presented many new and important questions to be dealt with in this office. I have also prepared a great many bills for the action of Congress, attended many times before committees of the two houses upon District business, and promptly met the various personal calls by the Commissioners and other officials of the District government.

Within the last six weeks I have given the necessary attention to the draught of a bill which is intended to cover the whole field of municipal law for the District. The work is in satisfactory progress, and I hope it will be in a condition to be laid before the Commissioners in time to be sent to Congress immediately after the holidays. It involves great labor and some expense. This draught will embody such changes in existing laws as I should recommend.

I beg leave to suggest as greatly conducive to the convenience of looking after the various bills and provisions of law in which the District is interested pending in either house of Congress—

First. That a regular file of all such bills and reports pending or introduced in duplicate be kept with care.

Second. That a convenient book be prepared in which regular minutes be kept of the progress and amendments of such bills, showing when and by whom introduced, to whom referred, when reported, and with what recommendations, and so far as known who favors and who opposes the same. The information can be drawn from the Congressional Record, chairmen of committees, and others; of course this duty would have to be assigned to some competent hand.

Referring to my informal report of July, mentioned at the commencement of this paper, I beg to suggest that Congress be asked to place this office on a more liberal footing as to compensation. The duties cannot,

in my judgment, be properly performed by a smaller force than is at present employed.

The attorney, who properly attends to his duties, cannot do other business of any considerable value; such business will not seek him. The uncertainty in the tenure of his office, however, compels him to retain such business if possible. I think the attorney should be paid at least \$5,000.

The first assistant, who takes charge of the appeal cases in the criminal court, civil cases before magistrates, and the general miscellaneous business outside of the office, as well as to aid in the office, should be a lawyer who can try any case in any court alone. It is to be remembered that the District often has important cases called up in the equity and circuit courts at the same time, and the District must have at least two attorneys, either of whom is competent to the trial of any case in any of the District courts or the Supreme Court of the United States. A man competent to this duty should receive, at the least, \$2,400 per year. He will be able to do very little beyond his official duties.

The second assistant is employed in the police court, at the least, one-half of each day. This report furnishes the amount of his labors there. He is also often called upon to aid the attorney and law clerk in the draught of pleadings, investigations of authorities, holding interviews with witnesses, or in attention to some of the numerous details of the business of the District in charge of this office. He has very little leisure for anything else. He should at least be paid \$1,200. So should the very competent law clerk. He must necessarily be a lawyer. It requires all his time. His duties here do not help in any considerable degree to introduce him to practice hereafter. The present incumbent is a very young man of wide knowledge and experience in the business of the office, and should be retained. He should at least receive as much as a first-class clerk in one of the departments. His work is of a higher grade, more varied, and laborious.

The messenger, or more properly assistant clerk, in addition to his duties as a messenger, aids in the clerical labors of the office.

The District at present bears the expenses of the attorney's office except the item of rent.

I suggest that Congress be asked to appropriate \$10,000 for the compensation of the attorney, his assistants, clerk, and messenger. I am sure that there is no branch of any government which secures so much legal service as the District requires for the same amount, \$10,000.

It should also be observed that the abolition of the two boards—that of Metropolitan police and health—also abolished the offices of the attorneys for those boards, respectively, who were paid each \$500 per annum. Their duties at once devolved upon the regular attorney of the District. In the discharge of these duties I have had occasion to write opinions and advise of matters pertaining to the duties of those branches of the District government not referred to otherwise in this report. Suits were already pending against police officers not embraced in the foregoing enumeration of cases and new ones have been commenced, all of which fall within my care.

Respectfully,

A. G. RIDDLE,
Attorney of the District of Columbia.

THE HON. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

P. S.—Herewith find detailed report of Mr. Padgett. The foregoing merely gives the number of the cases tried by him.

A. G. RIDDLE,
Attorney of the District of Columbia.

APPENDIX I 1.

Report of suits.

In whose favor rendered.	Date.	Amount.	Costs.	Remarks.
Charles D. Maxwell.....	Dec. 15, 1876	\$5,000 00	\$141 85	
Henry Hunt.....	July 8, 1875	.....	15 45	July 8, 1875, discontinued by plaintiff (District) at its cost.
Adolph Cniss, use of Freed- man's Savings Bank.	Feb. 21, 1877	2,155 00	26 29	Interest from July 24, 1873.
George T. McGhie.....	Dec. 1, 1877	285 00	16 60	Interest from February 18, 1875.
William Cahill.....	Nov. 25, 1876	1,058 65	15 70	Interest from October 20, 1873.
Thomas P. Morgan, use of Wm. N. Roach.	Mar. 10, 1877	5,638 90	17 40	Interest from February 5, 1876.
William Ballantyne.....	Mar. 10, 1877	7,710 00	10 20	With interest on \$384.79 from January 22, 1873; on \$2,046.50 from June 2, 1872; on \$1,950.42 from June 20, 1874; on \$40.45 from June 20, 1874; on \$1,244.30 from September 12, 1873; on \$2,043.62 from June 20, 1874.
Henry Dickson and William King, as firm of Dickson & King.	Mar. 10, 1877	1,520 40	9 95	With interest on \$240.96 from November 25, 1872; on \$15 from March 5, 1873; on \$100.63 from April 8, 1874; on \$112.42 from April 29, 1874; on \$702 from May 4, 1874; on \$181.92 from May 9, 1874; on \$167.53 from May 19, 1874.
Wm. F. Frazier.....	Feb. 12, 1878	1,500 00	77 30	
Jonathan Bigelow.....	Mar. 23, 1878	1,520 00	37 75	
Lewis Butler.....	Nov. 8, 1878	250 00	85 10	
Clarke & Given.....	Nov. 8, 1878	1,190 16	13 80	Interest from August 1, 1874.
Total.....		22,828 11	467 39	

The cases of W. W. Young and Francis K. Doubt, which appear on the first sheet as cases in which judgments were obtained against the District for the amounts set opposite their respective names, are not to be included in the statement of cases in which judgments have been obtained against the District, as on a second trial the court gave judgment for defendant.

APPENDIX I 2.

WASHINGTON, D. C.,
November 1, 1878.

DEAR SIR: I have the honor to submit herewith a full report of the cases tried in the police court from November 1, 1877, to October 31, 1878, inclusive:

Number of cases tried.....	3,739
Convictions.....	3,327
Dismissals.....	290
Dismissals on production of license, &c.....	39
Suspended.....	49
<i>Nol. pros.</i>	34
Fines imposed.....	\$21,533

The above cases were distributed among the different classes of offenses as follows:

Bathing in canal.....	1
Bathing in Rock Creek.....	6
Bathing in Potomac River.....	33
Biting dogs.....	19
Bar open on Sunday.....	38
Concealed weapons.....	87
Contempt.....	2
Cruelty to animals.....	11
Defacing private property.....	55

Defacing public property.....	9
Disorderly conduct.....	1,297
Disorderly in theater.....	1
Disorderly in market.....	3
Disturbing church meetings.....	10
Driving on sidewalk.....	14
Driving through procession.....	1
Driving through funeral.....	1
Enticing prostitution.....	11
Fast driving.....	9
Firing gun in street.....	19
Flying kite.....	1
Fighting dogs in street.....	2
Gambling.....	11
Goat running at large.....	1
Indecent exposure.....	60
Injuring trees.....	3
Injuring park railing.....	1
Keeping cow-yard.....	6
Kindling fire on lot.....	1
Lending horse over pavement.....	1
Nuisances.....	12
Obstructing street.....	31
Obstructing sidewalk.....	16
Open after hours.....	5
Opening barber shop on Sunday.....	11
Profane.....	723
Playing ball in street.....	29
Professional thief.....	3
Placing filth in street.....	7
Refusing to assist police officer.....	3
Selling game out of season.....	1
Selling on Sunday.....	5
Suspicious characters.....	7
Throwing stones.....	112
Trespassing on parks.....	76
Tying horse to tree.....	8
Unguarded excavations.....	2
Unlawful excavations.....	2
Unlawful measures.....	2
Unlicensed auctioneers.....	1
Unlicensed ball.....	52
Unlicensed bar.....	1
Unlicensed bagatelle.....	1
Unlicensed book-agent.....	1
Unlicensed chariot.....	9
Unlicensed commercial agents.....	1
Unlicensed concert.....	2
Unlicensed cattle-dealers.....	1
Unlicensed eating-house.....	7
Unlicensed hacks.....	1
Unlicensed junk-dealer.....	2
Unlicensed liquor-dealers.....	2
Unlicensed livery-stables.....	1
Unlicensed omnibns.....	1
Unlicensed pawnbroker.....	1
Unlicensed photographer.....	5
Unlicensed peddlers.....	40
Unlicensed produce-dealers.....	647
Vagrants.....	5
Violating building regulations.....	4
Violating cart law.....	6
Violating coal regulations.....	3
Violating market regulations.....	1
Violating license law.....	42
Violating hack law.....	1
Violating park law.....	4
Violating pawnbrokers' law.....	120
Violating snow law.....	2
Watering horses near hydrant.....	

Besides the cases herein specified, there were a large number examined and not prosecuted because of the insufficiency of the evidence.

Very respectfully,

JAS. E. PADGETT,

Special Assistant Attorney District of Columbia.

Hon. A. G. RIDDLE,

Attorney of the District of Columbia.

K.—REPORT OF THE CORONER.

CORONER'S OFFICE, DISTRICT OF COLUMBIA,

Washington, D. C., ———, 1878.

GENTLEMEN: In compliance with your communication of the 18th instant, requesting a report of the operations of this office from last report (October 1, 1877) to July 1, 1878, I have the honor to submit the inclosed tabular statement of bodies viewed and inquests held, and to make the following suggestions, with the view of increasing the efficiency of the office.

I have, in communications heretofore submitted, called the attention of the Commissioners to the need of a "morgue" in this District; this, with all the modern improvements, would be attended with considerable expense, perhaps more than the present state of the finances would seem to warrant. I would, however, suggest that, for present purposes, if deemed advisable, a room in the old central guard-house be fitted up for the reception of persons "found dead," where they could be viewed for the purpose of identification, and where autopsies may be made when necessary.

At present such cases are taken to the nearest police station, often in a condition exceedingly offensive, as well as injurious to health.

In regard to the transportation of dead bodies through the city, I have to say that it often happens that decomposition—this is especially true of drowned persons—is far advanced when found, and in view of this fact I respectfully recommend that two boxes, one for adults and one for children, lined with zinc, be procured, and that all persons buried at public expense be transported in these cases to the place of interment.

The question of payment of jurors and witnesses summoned by the coroner has often been raised and referred to the District attorney for opinion, which has hitherto been adverse to such payment; it does not seem just that citizens should be compelled to serve on juries or attend as witnesses without some compensation. I therefore suggest that Congress be asked to authorize and to make appropriation for the payment of jurors and witnesses duly summoned by the coroner, with penalties specified when such summons is not obeyed, and that thereafter six citizens do constitute a legal jury of inquest in this District, as is now the case in many of the States.

I have the honor to submit the following estimate for the support of this department, for the fiscal year ending June 30, 1880:

Salary of coroner	\$2,000
Incidental expenses, including stationery, blanks, &c.	200
Total	2,200

I have the honor to be, very respectfully, your obedient servant,
D. C. PATTERSON, *Coroner.*

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

APPENDIX K 1.

CORONER'S OFFICE, DISTRICT OF COLUMBIA,
Washington, D. C., November 16, 1878.

GENTLEMEN: I have the honor to submit the inclosed estimate for the payment of coroner's jurors and witnesses from November 15, 1878, to June 20, 1880. I also inclose estimate of amount necessary to pay jurors and witnesses from January 1, 1874, to November 15, 1878.

I have the honor to be your obedient servant,

D. C. PATTERSON, *Coroner.*

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

For payments of jurors from November 15, 1878, to June 30, 1880	\$600
For witnesses same time	300
Total	900
Amount necessary to pay jurors from January 1, 1874, to November 15, 1878....	3,144
Witnesses same time	700
Total	3,844
6 C D	

APPENDIX K 2.

Tabular statement of deaths certified by the coroner for nine months ending June 30, 1878.

Willful violence.				Accidents and negligence.										Diseases.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Suicides.		Homicides.		Infanti- cide.	Total willful violence.				Run over by cars.	Drowned.	Fell from buildings.	Gunshot wounds.	Smothered.	Exposure.	Unknown infants.	Still births and premature.	Total accidents and negligence.	Dysentery.	Cholera infantum.	Heart disease.	Apoplexy.	Diphtheria.	Phthisis pulmonalis.	Congestion of lungs.	Convulsions.	Rupture of aorta (atheroma).	Chronic peritonitis.	Pneumonia.	Asthma.	Epilepsy.	Scarlet fever.	Colic.	Senile debility.	Total from disease.	Total from all causes.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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D. C. PATTERSON, Coroner.

L.—REPORT OF THE HEALTH OFFICER.

OFFICE OF THE HEALTH OFFICER,
Washington, D. C., ———, 1878.

GENTLEMEN: I have the honor to submit herewith my report as health officer of the District of Columbia.

In this report I have neither a great array of facts to present nor extensive recommendations to make.

The important office to the charge of which I have had the honor to be appointed is of recent creation and has been under my control but a few months, and I entered upon the duties which the charge imposes with but a general acquaintance of the health systems of other localities.

While it is impossible, therefore, to present a very great record of events and observations, it would seem also wanting in propriety to assume that knowledge of all the necessities for the maintenance of public health which longer experience and continued faithful application can only impart, and make extensive suggestions of improvement.

I shall confine myself to what has transpired in direct connection with the health office here from the time of its establishment, and to such recommendations as even my short experience has convinced me are imperative.

CREATION OF THE OFFICE.

The office of health officer of the District of Columbia was created by an act of Congress approved June 11, 1878, entitled "An act providing a permanent form of government for the District of Columbia," sections 8, 9, 10, and 11 of which relate particularly to this office, and are as follows:

SEC. 8. That in lieu of the board of health now authorized by law, the Commissioners of the District of Columbia shall appoint a physician as health officer, whose duty it shall be, under the direction of the said Commissioners, to execute and enforce all laws and regulations relating to the public health and vital statistics, and to perform all such duties as may be assigned to him by said Commissioners; and the board of health now existing shall, from the date of the appointment of said health officer, be abolished.

SEC. 9. That there may be appointed by the Commissioners of the District of Columbia, on the recommendation of the health officer, a reasonable number of sanitary inspectors for said District, not exceeding six, to hold such appointment at any one time, of whom two may be physicians and one shall be a person skilled in the matters of drainage and ventilation; and said Commissioners may remove any of the subordinates, and from time to time may prescribe the duties of each; and said inspectors shall be respectively required to make, at least once in two weeks, a report to said health officer in writing of their inspections, which shall be preserved on file; and said health officer shall report in writing annually to said Commissioners of the District of Columbia, and so much oftener as they shall require.

SEC. 10. That the Commissioners may appoint, on like recommendation of the health officer, a reasonable number of clerks, but no greater number shall be appointed and no more persons shall be employed under said health officer than the public interests demand and the appropriation shall justify.

SEC. 11. That the salary of the health officer shall be three thousand dollars per annum; and the salary of the sanitary inspectors shall not exceed the sum of one thousand two hundred dollars per annum each; and the salary of the clerks and other assistants of the health officer shall not exceed in the aggregate the amount of seven thousand dollars, to be apportioned as the Commissioners of the District of Columbia may deem best.

APPOINTMENT OF HEALTH OFFICER.

Under this act I was, on July 9, 1878, appointed, and immediately entered upon the discharge of my duties.

The records and property of the board of health were turned over to

me at once, and I must express my thanks to the members of that board for the readiness with which they placed at my disposal the material in their possession, and particularly the sense of obligation which I feel toward Dr. Keene, the health officer under the board of health, for the cordial manner in which he extended to me his assistance and advice in the initial performance of my duties.

SYSTEM ADOPTED.

A few days' experience sufficed to show me the magnitude of the work to be performed, and to impress me with the necessity of adopting a system commensurate therewith.

The law requires the health officer to keep a correct record of vital statistics, including the registration of births, marriages, and deaths, and the interment of the dead; to do general sanitary work, including the daily inspection of streets, alleys, lots, yards, &c., and, where nuisances injurious to health exist, to provide for the removal thereof; to prevent the sale of unwholesome food in the District of Columbia; to superintend the collection of all offals, including night-soil, garbage, and dead animals, and to see to their removal beyond the limits of the District; to prevent the introduction and spread of infectious and contagious diseases; and to prevent domestic animals from running at large in the cities of Washington and Georgetown.

To accomplish the object first above named, that of securing a full and correct record of vital statistics, it is made the duty of every magistrate, clergyman, or other person who shall perform any marriage ceremony within the District of Columbia, to report each marriage ceremony solemnized by him to the health officer within forty-eight hours thereafter, giving the full name, age, occupation, birth-place, and legal residence of each person married, together with the date of such marriage. Blanks for this purpose are furnished to all clergymen and other persons whose duty it may become to solemnize marriages, and from their reports the *record of marriages* kept at the health office is compiled. Failure on the part of persons described to report a marriage within the time specified is punishable by a fine of from \$25 to \$200.

It is also made the duty of every physician, accoucheur, midwife, or other person in charge, who shall attend, assist, or advise at the birth of any child in the District of Columbia, to report to the health officer within six days thereafter, stating distinctly the date of birth and the sex and color of the child or children born, its or their physical condition, whether still-born or not, the full name, nativity, and residence of the parents, and the maiden name of the mother. Blank certificates for the information desired are furnished, and from these reports the *record of births* is compiled. Failure on the part of the persons described to report a birth within the time specified is punishable by a fine of from \$25 to \$200.

It is further required that when any person shall die within the District of Columbia, the physician who attended such person during his or her last illness, or the coroner of the District, when the case comes under his official notice, shall furnish and deliver to the undertaker, or other person superintending the burial, a certificate, duly signed, setting forth, as far as the same may be ascertained, the name, age, color, sex, and nativity of the person deceased, what was the occupation of such person, and whether he or she was married or single, the length of residence in the District of Columbia, the cause, date, and place of death, and the duration of sickness which resulted in death.

And it is made the duty of the undertaker, or other person having charge of the burial, to write upon this certificate the date and place of burial, and, having signed it, to forward the certificate to the health officer within twenty-four hours after death.

But the physician must be duly registered at the health office, else his certificate will not be received.

From certificates just described, the *record of deaths* kept at the health office and the *monthly mortality reports* are compiled, and it is, perhaps, proper to state here that these mortality reports are sent to all registered physicians in the District.

Failure, on the part of the undertaker or other person having charge of a burial, to give the date and place of burial is punishable by a fine of from \$25 to \$200.

A permit from the health office is required for the interment or disinterment of the dead body of any human being, or the disposition thereof in any tomb, vault, or cemetery within the District, and such interment or disinterment must be made in accordance with the terms of such permit.

Sextons or other persons having charge of cemeteries or burying-grounds are forbidden to assist in, assent to, or allow, any interment or disinterment to be made without such permit; and it is made the duty of every sexton or other person receiving such permit to preserve and return it to the health officer before 6 o'clock p. m. of the Saturday following the day of burial, under penalty of a fine of from \$25 to \$200.

Sextons, undertakers, or other persons, are further forbidden, under the same penalty, to bury, or cause to be buried, the body of any deceased person, except in such grounds as are known and used as burying-grounds, or shall hereafter be by law designated and authorized to be used as such.

Burial permits or permits for removal are issued upon presentation of physician's certificate of death.

Permits for disinterment are granted upon the application of proper parties and sufficient description, unless the party whose body is to be exhumed died of some contagious disease.

A permit from the health office is also required to convey from, in, to, or through the District the dead body or part of the dead body of any human being, by means of any boat, vessel, car, stage, or vehicle, public or private conveyance, or by any person; and where the remains of any deceased person are to be conveyed, transferred, or removed beyond the limits of the District, it is made the duty of the person, agent, or officer of the corporation having charge of the conveyance, transfer, or removal, to detach, sign, and return a coupon attached to said permit before 5 o'clock p. m. of the Saturday following such removal, under a penalty of a fine of from \$25 to \$200.

All practicing physicians, acconcheurs, midwives, undertakers, sextons, superintendents of cemeteries, or other persons having charge of the same, are required, under a penalty of from \$50 to \$200, to register their names in books provided for that purpose in the health office.

The coroner is required to make a monthly report to the health officer of the number of inquests held by him during the month last past before said report, with a full description, as far as may be, of the age and sex of persons, color and nationality, the cause and mode of the death, and such other particulars as may be necessary to their identification in case of strangers and unknown persons.

Thus it will be seen that checks are had upon all persons whose duties connect them in any way with the dead, and the records of mortality

are made perfect. In the registration of births and marriages, however, such perfection is not attained. Some physicians do not report all births at which they attend, and the neglect is not discovered except in case of the child's death. It is doubtless in consequence of this neglect that our tables show a decrease of the population by deaths over births. Some clergymen are also careless in reporting marriages solemnized by them, and frequently have to be notified before returns are made.

The intelligent class of men composing both the medical and clerical professions should see the necessity of contributing to the perfection of these very important records by forwarding promptly all the required information in each and every case. In this connection I would invite attention to the necessity for placing these records in a fire-proof building.

The general sanitary work is accomplished by a corps of six sanitary inspectors, four of whom are charged with the daily inspection of alleys, streets, lots, yards, &c., and the abatement of nuisances found in such places.

One is detailed as medical inspector, in connection with the bureau of vital statistics, his duty being to investigate premises where cases of zymotic disease may occur and ascertain if there be any discoverable local cause of disease existing; and, if such be found, to take proper action toward removal thereof, and to give instructions regarding isolation, disinfection, &c. He is further charged with the examination of certificates of death and their proper classification.

Each of the four inspectors assigned to street duty inspects a certain district or section, reports all conditions which may prove injurious to health, and examines into and reports upon complaints of citizens coming from his district. These four inspectors report daily in writing to the health officer, who examines each report personally and takes such action as the law will warrant to effect desirable improvement. A *record of nuisances* is kept at the health office. Notices are issued by the health officer to parties responsible for nuisances found, and a certain time is allowed for abatement. If at the expiration of such time the nuisance remains unabated, the case is turned over to the attorney of the District for prosecution.

It is proper to state, however, in this connection, that serious nuisances are occasionally found to exist, the abatement of which our present health ordinances are inadequate to secure. I shall take occasion to refer to this in my recommendations.

It will be seen that each of these four inspectors is expected to have personal knowledge daily of the sanitary condition of a territory covered by the habitations of 40,000 human beings.

Strenuous efforts have been made to prevent the sale of unwholesome food in the cities of Washington and Georgetown. Not only is unwholesome food exposed for sale subject to confiscation, but any person knowingly exposing such food for sale, or responsible directly or indirectly for the exposure thereof, is liable to punishment. Thus, vendors of impure, diseased, decayed, or unwholesome provisions; adulterations with any poisonous substance, for the purpose of sale, of bread or other material intended for food; vendors of any liquor used for drink, which has been poisonously adulterated, or of the milk of cows or goats so adulterated, are liable to a fine of from \$10 to \$50 for each offense; vendors of any parts of a sickly or diseased animal, or of any animal which has died from disease or accident, of any fish or vegetables not fresh and sound and fit for food, of any unwholesome, watered, or adulterated milk, or swill-milk, or milk from cows kept up and fed on garbage, swill, or other

deleterious substance, or of any product from such milk, of any unsound, blown, or unwholesome meat, and all persons who shall slaughter, or cause to be slaughtered for food, any cattle in a feverish or diseased condition, are liable to a fine of from \$5 to \$25; as also is any owner, manager, keeper of, agent, bartender or clerk in any saloon, restaurant, boarding-house, or eating-house, who shall offer for sale as food, or drink, anything poisonous or unwholesome; and any person owning, renting, leasing, or occupying any stall, room, or stand where meats or vegetables are sold for food, who shall fail to keep such stall, room, or stand in a cleanly condition, or who shall allow such meats or vegetables to become poisoned, or infected, or otherwise unfit for food, by reason of the uncleanly condition of such stall, room, or stand, is liable to a fine of from \$10 to \$25.

One man, all that could possibly be spared from the small force of sanitary inspectors, has been charged with the inspection of all matter offered for sale as food in the markets, commission houses, and the various provision stores of Washington, while two privates have been detailed from the police force, one to watch the river front of Washington, inspecting all marine products, &c., brought to the wharves, and the other to supervise the markets, shops, and wharves of Georgetown.

Unwholesome food is condemned and given to the collectors of garbage for removal.

Failures or refusals to comply with the regulations governing the inspections of food are presented to the attorney of the District, as in the case of nuisances remaining unabated.

Any person who molests or hinders in any manner the health officer or an inspector in the performance of his duty is punishable by a fine of from \$20 to \$100 for each offense.

The inspector detailed to this special duty, and the two policemen, also report daily in writing to the health officer.

In regard to water, it is the popular belief that if the same is but bright and clear, and, withal, cold and not unpleasant to the taste, it must be good; while it has been proven over and over again that such water may be polluted with unspeakable filth, and that an excessive brilliancy of a water is a suspicious sign. Any person putting any description of filth into any water used by the public is liable to a fine of from \$5 to \$50, and any person maintaining a well or spring which is impure or unwholesome is liable to a fine of from \$5 to \$50.

For the collection of garbage and the transportation of offal a contract is made. The contractor is required to report daily, in person, to the health officer. All complaints of neglect as to the removal of offal, garbage, and the like, are referred to the contractor for explanation, and are then returned with his indorsement, for information of the complainant. The contractor is also required to report weekly in writing, showing the extent of the service performed, and, before his money is paid him, the health officer must certify that his work has been done in a satisfactory manner.

Night-soil is removed from privies, privy-boxes, vaults, sinks, and cesspools, within the cities of Washington and Georgetown and their more densely populated suburbs, by the Odorless Excavating Apparatus Company, who employ their patent pneumatic process, whereby exposure of the night-soil to the open air during the collection of the same and during its transportation through the cities is avoided, it being punishable by a fine of from \$10 to \$50 to remove night-soil by buckets or other means agitating or exposing the same to the open air, or to transfer it through Washington or Georgetown or the more densely popu-

lated suburbs in receptacles not air-tight. And it is unlawful, under a penalty of not less than \$10, for all persons, other than those authorized, to clean any privy in Washington or Georgetown, or to employ any one but the regular contractor, and it is also unlawful for any person, under a penalty of from \$5 to \$50, to deposit the contents of any privy in any place other than such as is approved by the health officer. The Odorless Excavating Apparatus Company deliver the night-soil collected by them to the contractor for transportation of offals at James Creek Canal, near the arsenal.

Any person creating, keeping, or maintaining an offensive privy, or a water-closet from which noxious gases and offensive odors arise, is liable to a fine of from \$5 to \$25. And keeping hogs, or having filthy and unwholesome stables or sheds for cows, horses, or other animals, within the cities of Washington or Georgetown, or the more densely populated suburbs of said cities, or keeping any animal affected with glanders or other contagious disease, is punishable by a like fine.

Garbage is collected by the contractor for the collection of garbage and the transportation of offal above referred to, who is required to gather the same thrice weekly from private residences and daily from the markets in the cities of Washington and Georgetown, and convey the same away in covered and inclosed receptacles, it being punishable by a fine of from \$2 to \$25 otherwise to transport bones, hides, fish, garbage, offal, or other animal or vegetable substance in a decomposing or offensive condition through Washington or Georgetown.

Suitable receptacles are provided at convenient points in the markets, and householders are expected to deposit their garbage in boxes placed at a point on their premises most accessible and convenient to the collector. There is a penalty of from \$5 to \$25 attached to keeping great quantities of manure, offal, garbage, or other offensive substance within 300 feet of any dwelling, and a fine of from \$5 to \$20 to filling any lot with the filth gathered in cleaning streets or yards.

The presence of a dead animal anywhere in the District of Columbia is reported to the health officer by the police or by the owner of such animal. In fact it is made the duty of the owner of any undressed dead animal, lying in any part of the cities of Washington or Georgetown, or the more densely populated suburbs of said cities, to report such presence to the health officer, and any owner or other person who shall place, and any owner or other person responsible who shall knowingly allow a dead animal to remain in any part of said cities or suburbs, and fail to give notice thereof to the health officer within eight hours thereafter, is liable to a fine of \$10.

When the presence of a dead animal at any point is made known to the health officer, he notifies the contractor, who removes the same in a covered wagon.

The night-soil, garbage, and dead animals are removed to Broad Creek, a point on the Potomac several miles below Alexandria, Va., and are there utilized by the contractor, the greater part of the material being manufactured into fertilizers.

To prevent the introduction and spread of infectious and contagious diseases, it is made the duty, under a penalty of from \$25 to \$200, of the physician attending any person who shall die of any infectious or contagious disease to make and forward the death certificate within eight hours after death. In a case of small-pox it is the duty of the attending physician and of every good citizen to report the same at once. The bodies of persons dying of contagious diseases are to be inclosed in ametallic or air-tight casket, which caskets are not to be opened

after closure. The keeper of any tenement-house, lodging-house or hotel is required, under a penalty of from \$10 to \$50, in the event of any person living in such house becoming affected with any dangerous, infectious, or contagious disease, at once to notify the health officer in writing. In case of a threatened epidemic the health officer is authorized to issue such orders and instructions and adopt such regulations as he may deem necessary; and whenever, in his opinion, the complete isolation of a person affected with any infectious or contagious disease (the person being an inmate of a tenement-house, lodging-house, boarding-house, or hotel in the District of Columbia) cannot be secured by other means, such person must be removed as expeditiously as possible, under the direction of the health officer, to the public hospital for treatment; and any person resisting the requirements of the health officer in such case is liable to a fine of from \$10 to \$50; and in case of any one other than the diseased person, to imprisonment for thirty days; and willful exposure of the community to contagious disease by the person infected, by one having control of such person, by the driver of any conveyance which has held him and has not been immediately and properly disinfected, or by any person in giving, lending, selling, transmitting, or exposing clothing, bedding, rags, or other things, is punishable by a fine of from \$10 to \$100 for each offense; and any person who shall let any room, house, or part of a house in which a person has been confined by reason of a contagious disease, without having such house, room, or part of house completely disinfected to the satisfaction of the health officer, as certified by him, is liable to a penalty of from \$10 to \$50 for each offense.

The health officer is in general charged with the isolation of cases of contagious disease and the disinfection of premises infected, and also with the placing of warning signs upon dwellings or other places where small-pox exists—flags of yellow flannel and placards. He must also see to general and systematic vaccination when the public health requires it.

To prevent domestic animals from running at large in the cities of Washington and Georgetown, a poundmaster and four assistants are employed, who patrol constantly the streets and avenues of the two cities and take up any unlicensed dog or other animal at large without a keeper. These animals are taken up and may be impounded for forty-eight hours. If at or before the end of this period they are not claimed, and charges for taking up, impounding, and keeping the same are not paid, they are sold at public auction, the poundmaster acting as auctioneer. In the case of dogs, these may be killed.

The proceeds of sales at the pound are turned over to the health officer, who gives receipt therefor. All moneys received by the health officer for the sale of animals are, if demanded by the owner of such animals at any time within one year from the sale thereof, upon satisfactory proof that the claimant was the owner of the animal sold, after deduction of charges and expenses of taking up and impounding and keeping, paid to such claimant; otherwise, said moneys are turned over to the collector of the District of Columbia. Charges for taking up and impounding domestic animals found running at large are as follows: For each horse, mule, bull, steer, cow, calf, goat, or dog, \$2; for each sheep or hog \$1, and for each goose 25 cents; and in addition to said several sums the cost of keeping of the animals is charged. In case of dogs, a tax of \$2 each per annum is levied, and suitable metallic tags are issued by the collector of taxes, to be worn by the dog, to show that the tax is paid. It is the duty of the poundmaster to take up all dogs found without the tax-tag, and in addition to this the owner is liable to a fine of from \$5 to \$10 for keeping an unlicensed dog. In case danger is appre-

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after closure. The keeper of any tenement-house, lodging-house or hotel is required, under a penalty of from \$10 to \$50, in the event of any person living in such house becoming affected with any dangerous, infectious, or contagious disease, at once to notify the health officer in writing. In case of a threatened epidemic the health officer is authorized to issue such orders and instructions and adopt such regulations as he may deem necessary; and whenever, in his opinion, the complete isolation of a person affected with any infectious or contagious disease (the person being an inmate of a tenement-house, lodging-house, boarding-house, or hotel in the District of Columbia) cannot be secured by other means, such person must be removed as expeditiously as possible, under the direction of the health officer, to the public hospital for treatment; and any person resisting the requirements of the health officer in such case is liable to a fine of from \$10 to \$50; and in case of any one other than the diseased person, to imprisonment for thirty days; and willful exposure of the community to contagious disease by the person infected, by one having control of such person, by the driver of any conveyance which has held him and has not been immediately and properly disinfected, or by any person in giving, lending, selling, transmitting, or exposing clothing, bedding, rags, or other things, is punishable by a fine of from \$10 to \$100 for each offense; and any person who shall let any room, house, or part of a house in which a person has been confined by reason of a contagious disease, without having such house, room, or part of house completely disinfected to the satisfaction of the health officer, as certified by him, is liable to a penalty of from \$10 to \$50 for each offense.

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hended from hydrophobia the Commissioners may issue a proclamation requiring that all dogs shall be muzzled.

Fierce or dangerous dogs allowed to go at large subject the owner to a fine of from \$10 to \$20, or the dogs may be finally killed.

Any person interfering with the poundmaster or an assistant in the discharge of his duty, or any person breaking into the pound or letting any animal out of the same without the consent of the officer keeping the same, is liable to a fine of from \$5 to \$25.

The poundmaster keeps a register of all animals taken up by him, with an accurate description of the same, which register is open to the inspection of the public. The poundmaster reports daily in writing to the health officer and turns over all moneys received from redemption fees and sales.

This is the system under which the duties pertaining to the health office are performed.

RECOMMENDATIONS.

My earnest intent from the time of taking charge of the office has been to sustain, and if possible improve, the sanitary condition of the city, and, very soon after my appointment the yellow fever appearing and becoming so general and virulent in the Mississippi Valley, it became incumbent upon me to put forth my best efforts in this direction and prevent, if possible, the introduction and spread of this terrible disease among our people.

The concentrated energies of my small force was at once brought to bear in accomplishing the removal of any and every discoverable condition which might tend to feed or harbor the poisoned germs, if transplanted among us.

Our labor was unremitting. The inspectors worked well, and in a short time improvement was noticed in every direction. The alleys throughout the city which were in a very filthy condition were all cleaned and thoroughly disinfected. Vigorous measures were adopted to secure the abatement of insanitary conditions on private property. General disinfection was ordered, and lime and disinfectants were furnished those persons who were unable to purchase them. Nuisances of long standing, such as ponds of stagnant water, &c., which from defect in the law or other cause could not be abated at once, were temporarily remedied by the use in disinfectants. (This defect in the law I shall also notice in my recommendations.) That portion of the city subject to overflow from the sewers was carefully inspected, and its condition materially improved. The citizens themselves were called upon to assist the health officer in placing the city in the best possible sanitary condition. The following card, which I have the best of reasons for believing accomplished much good, was published in the city press:

WASHINGTON, D. C., August 27, 1878.

To the people of the District of Columbia:

Upon you, one and all, I would impress the necessity of throwing the safeguard of cleanliness about your homes. To you I appeal for assistance in rendering an epidemic in our midst impossible. Let the picture of distress prevailing in the scourged cities of the Mississippi Valley be a warning to each of you to leave no spot about your premises which might become a foothold for yellow fever, or disease of any form. We do not apprehend danger at present, nor do we desire to excite unnecessary alarm. Yet none can prophecy what a day may bring forth, and while our city is in comparatively good sanitary condition—a paradise compared with some of the cities of the South, yet there is always room for improvement, and scarcely a family among us who cannot contribute a mite toward that improvement. Look around you; is there not some condition of your house, yard, outhouse, drainage, or surroundings which might be remedied or bettered? The morbid agent to which the disease of yellow fever is

due, depends for its existence and elaboration on atmospheric heat, moisture, and filth. The two former we cannot control; the latter can be avoided or removed. Is there no spot about your premises which you avoid? Perhaps there is something you consider of small consequence, and to which you have paid no attention—some little habit to which you and your neighbor are addicted whereby a nuisance is unconsciously created.

The one pan of slop, dish or wash water thrown from the kitchen door into the yard amounts to but little; it is soon absorbed; but the continuance of the practice day by day soon saturates the soil; the multiplied particles of animal and vegetable matter contained in this foul water decay and throw off offensive odors and poisonous gases which vitiate the atmosphere and sow the seeds of disease. One potato, tomato or other vegetable thrown on the pile of ashes or *débris* in one corner of the yard is a small matter, but one added daily or hourly soon make it a foul offensive mass. The clear pure water dripping from your hydrant, if not properly conveyed away, soon forms a pool and becomes stagnant and offensive. So we might continue to enumerate. If there is anything which constitutes a nuisance on your premises, remove it *at once*. Ventilate your house, and especially your cellar (if you have one), well. If there is material of any kind decaying in your cellar, or accumulating mold, remove it. If your yard is filthy, clean it. If your privy is offensive, disinfect it. Clean the gutters in front of your own premises. If your premises are only supplied with surface drainage, keep the drain clean and disinfect it occasionally. Do not allow foul weeds to accumulate, to fall and decay in your yard. See that all connections with the public sewer are trapped and no foul odors are escaping. Have your garbage removed regularly. If the collector is neglectful notify this office. Whitewash and sweeten up your fences, sheds, and outbuildings. Those who are unable to purchase disinfectants can have them supplied upon application to this office. Use dry earth in your privies, and chloride of lime in cellars and drains. Never use quicklime in privies or stables; it liberates the ammonia and increases the offense.

In short, use every means in your power to put your own premises in good sanitary condition. The limited force at the command of the health officer renders frequent inspections of all premises in the District impossible. Nor should it be necessary for the people to be *compelled* to keep clean. The health department is using every effort in its power in behalf of the community, and appeals to the intelligence of that community to render its assistance.

Very respectfully,

SMITH TOWNSHEND, M. D.,
Health Officer.

While strict quarantine was not deemed necessary, the hotel-keepers and others were requested to notify the health officer of arrivals from the infected districts, and all persons from such districts were examined before clothing was allowed to be unpacked, clothing also being disinfected upon removal from trunks.

Fortunately the direful scourge did not reach us, but its ravages in other cities should be a warning to us that no stone must be left unturned in the effort to remove from our cities and environs every stumbling block in the way of their healthfulness. The medical faculty have generally agreed that three conditions must usually concur before there can be an epidemic of yellow fever at any center of population, viz: Favorable climate and temperature, local aids to propagation, such as malaria, filth &c., and the importation of the germ. By the recent epidemic in Chattanooga, Tenn., however, we are shown but too plainly that when an imported germ finds a local situation that is favorable, no climatic conditions are needed. Chattanooga is one thousand feet above tide, in a limestone country, dry and cool, the very last place where an outbreak of fever might be looked for. But the city was badly drained; it was filthy; *it had alluvial flats near by* subject to overflow; the germ was transplanted from Memphis; the local aids were favorable and promoted its propagation, and Chattanooga writhed under the terrible disease. We should not rely upon climate entirely to insure us from visitation by any disease, but there is ever imperative necessity for taking proper sanitary precautions, and it is confidently believed that Congress will provide for the proper care of the sanitary interests of what should be the most perfect city, in every particular, on this continent.

THE POTOMAC FLATS.

First and foremost among the sanitary necessities of the District of Columbia is the improvement of our river-front and the abatement of that great nuisance "the flats," or "Kidwell's bottoms," extending along the north shore of the Potomac from the National Observatory to and below the "Long Bridge," and also those on the Eastern Branch, or Anacostia River.

Extended comment on this subject is not necessary. Every intelligent citizen is fully aware of the extent and influence of these malarial marshes, these hundreds of acres of swamp, which present to the eye during the summer months a vast undulation of rank vegetation, and which, during the fall, furnish so many patients to the physicians. Not only does the vast amount of vegetation which springs forth fall and decay, but much of the sewage of our cities is carried back from the river by the tides, and remains on these flats to ferment and throw off its deadly effluvia. Some of our sewers empty their contents directly into the morass on the Potomac, and the sedimentary matters deposited can never effectually be borne away by the tidal currents.

The subject has been presented time and again to Congress and numerous plans have been suggested to abate this great nuisance, but this is a question in the domain of engineering, and the knowledge and skill of an engineer is requisite to solve the problem.

Stirred to energy by the terrible experience of our Southern cities, an effort is again being made by some of our prominent citizens to induce Congress to take decisive action at its next session looking to the eradication of this plague-spot from our midst. Let us all give this movement our earnest and hearty support and trust that better results may attend our labors than have been the case with those who have toiled in this direction before us.

CLEANING OF STREETS, ALLEYS, ETC.

The health officer in attempting to properly discharge the duty of abating all nuisances found on streets, avenues, lots, yards, or other places, often meets with embarrassments. In the abatement of nuisances found on streets, alleys, &c., delay is occasioned by the superintendence of the work not being placed under his immediate control. Many of the best regulated cities in this country have such service performed under direction of their health department, and it would seem perfectly natural that all matters pertaining to the cleanliness and consequent sanitary condition of a city should be the direct business of the health officer. At present this duty is performed by the superintendent of streets, under direction of the engineer.

NUISANCES ON PROPERTY OF NON-RESIDENTS.

The abatement of nuisances on private property is often retarded, and in many instances prevented, by the occasional impossibility of finding the owner; or by the owner being a non-resident and failing to respond to notice.

In cases of this kind, the offending party cannot be brought into court, and the health officer remains powerless. Where nuisances of a serious character exist on property for which no owner or responsible agent can be found, or where the owner resides beyond the limits of the District and fails to respond to notice within a reasonable time, the law

should give the health officer authority to enter upon the premises, abate the nuisance there existing, and certify the cost of abatement to the proper officers of the District, who should then cause such cost to be assessed against the property, when the amount would be collected as other taxes for special improvements are collected in the District of Columbia.

I would respectfully recommend that legislation to this effect be asked of Congress at the approaching session.

SOAP-FACTORIES, ETC.

Where a nuisance on private property has been of long existence, it is also difficult or impossible to secure its abatement. The necessity for removing from thickly populated sections those noisome nuisances known as soap-factories and rendering-establishments, also establishments for burning or boiling offal, swill, bones, fat, tallow, or lard, for making glue, boiling varnish or oil, for making lampblack, making turpentine, for distilling ardent alcoholic or fermented spirits, for storing or keeping offensive matter, or establishments wherein any business or trade is carried on whereby stench and noisome odors or noxious gases arise or are generated, cannot be too strongly urged upon those who make laws.

Unfortunately for residents near these pestilential and disgusting establishments, a majority of the supreme court of the District of Columbia rendered a decision against the suppression of one of them, which had been declared a nuisance injurious to health (upon the ground, it is believed, that it was of long existence), and citizens are still compelled to breathe and endure foul odors and noxious gases which are poured into their chamber windows.

Early and special legislation covering this subject is sorely needed.

SEWER GASES IN DWELLINGS.

Another subject worthy of and demanding special attention is the prevention of the escape of sewer gas into dwelling-houses.

Volumes have been written on the subject of sewer gas, and its discussion has occupied much of the time of the ablest sanitarians of the day. The press has devoted column after column to it, and physicians have warned their patients of its deadly effect. Notwithstanding all this, untrapped soil-pipes, waste-pipes, and drain-pipes of every description are frequently found by the sanitary inspectors, oftentimes in some of the finest appearing residences.

This will continue until it is made a penal offense on the part of any plumber, or other person who shall connect any premises with a sewer, not to supply properly constructed and approved traps to prevent the issuance of gases into the premises.

There should be employed, under direction of the health officer, a competent person whose duty it should be to inspect all houses in course of erection and investigate the construction and arrangement of the sewers, sewer-traps, waste and drain pipes.

It should be necessary to have a certificate as to the correctness of the sewers, sewer-traps, and drain-pipes ere the property could be inhabited, and any person failing to do plumbing work properly, whereby noxious gases might enter premises, should be liable to fine. I would respectfully recommend that the attention of Congress be invited to this subject also.

CARE OF THE SICK POOR.

If there is one subject more than another deserving especial consideration, that subject is the provision of medicines and medical attendance for the indigent poor of the District of Columbia.

Numbers of these unfortunates die annually in the cities of Washington and Georgetown for want of medical attendance and for want of medicine, while untold suffering is entailed upon many that survive.

Few people not actually in contact with this class can realize the sufferings of forlorn wretches too far sunk in the depths of poverty ever to know the pleasures of hope, ever to experience the comfort which the competent physician can bring to the bedside of the sick, ever to experience the alleviation of suffering by medicine. Few can realize the misery of the family which must see, without one spark of hope of help, one of its number hastening to the grave. They must all resignedly await the course of nature. If the pauper die, it was but as expected; if he survive, it is but to repeat the miseries when again he is stricken by disease.

The District of Columbia has a large pauper element brought to her by certain peculiar causes which have affected no other city. There are forty thousand negroes in the District, a majority of whom flocked to the seat of government just after the war, expecting to gain an easy livelihood and find perpetual employment at the hands of those who gave them freedom. But a reaction came, and with it came hard times, and these people found that freedom had its trials and tribulations as well as its joys and pleasures. Once imbued with a love of the excitement of city life, they were loath again to return to farm and field, and they have remained in the shanties and huts which fill the alleys and back streets of Washington and Georgetown. Poorly clad, ill-fed, and surrounded by filth and squalor, they fall an easy prey to disease and are a constant care to the health authorities. There is also a large number of poor whites who find the struggle for existence a hard one, and who, when sickness overtakes them, find it difficult to procure medical attention. Many persons are annually attracted to the national capital who, by reason of the tedious delays which sometimes attend legislation or the procurement of official position, or through the failure of some cherished plan, are thrown upon the charity of the District. Should disease overtake them in poverty there is no provision for their case.

There is no other city in the country of even half the population of Washington but what makes provision for the medical care of its indigent poor.

That many poor die from lack of medical care is illustrated by the fact that the health officer is called upon daily to investigate the cause of death in cases where no physician has been in attendance, where no medical aid whatever has been rendered.

And when we take into consideration the large number who are attended gratuitously by our physicians, than whom no more charitable and self-sacrificing set of men can be found, the great necessity of provision for this service must present itself to all.

INSPECTION OF LIVE STOCK.

The inspection of live stock is an essential to the prevention of the sale of unwholesome food for which no provision is made. Owners of stock, on the approach of any disease, are apt to put their animals on the market, and the only possible means of preventing the sale of dis-

ceased meat is by having the killing of such animals for food rendered impossible. The passage of a law requiring all animals destined for food in our markets to be taken to a given point and inspected by an expert person, before being slaughtered, would keep more unwholesome meat from the people than could the combined efforts of a number of men employed to examine it on the market stalls.

The passage of a law covering this subject is earnestly recommended.

The health officer is seriously embarrassed by the smallness of the force given him to accomplish the work prescribed and expected of him.

INSPECTION OF PUBLIC SCHOOLS.

The importance of a thorough inspection of the public-school buildings of the District impressed itself upon me soon after I entered upon my duties as health officer, and I took the earliest opportunity for performing the work. In company with two assistants I made personal inspection of each building occupied as a public school in the cities of Washington and Georgetown.

There are 62 of these buildings, containing in all 267 rooms used for school purposes. Two hundred and four of these school-rooms are in buildings owned by the District; 63 in buildings rented. The buildings are of all kinds and conditions, from the palatial brick, with mansard roof and trimmings, to the transformed market-house and plain wooden dwelling; from those with large, airy, well-ventilated, well-drained, and handsomely appointed rooms, to damp, dark basements and dilapidated structures with a single room.

The task, though somewhat arduous, was in many ways an agreeable one. It is not always, as in this case, the good fortune of health officers to be brought in contact with persons who give to every question an intelligent reply, and who enter heartily into the spirit of preserving the health of those around them. From Superintendent Wilson, who accompanied me through the Franklin Building, to the youngest teacher of some primary class, all answered my questions cheerfully and lent me their cordial assistance.

The short time allowed for the preparation of this report prevents my entering into the subject as fully as I would desire, and I will therefore confine myself to stating the most urgent of the many needed reforms, and reserve a more complete and minute statement for some future time.

I will only attempt to give a brief summary of the defective conditions which call for prompt action, and I shall do this in as few words as possible, leaving details and elaboration of facts for the near future. I hope soon to be able to give the subject that time and careful study which its importance demands.

The colored schools being nearly all located in buildings of recent construction, were found to be generally in better sanitary condition than the white, and the buildings owned by the District far superior in this particular to the rented ones. The owned buildings are by no means perfect, however; and in some of the finest, defects of a serious character were found.

I will speak first of the large, well-known buildings, commencing with the Jefferson.

An inspection of this magnificent temple of education illustrated but too plainly how easy it is for one to be deceived by appearances. "All must be perfect within that beautiful structure" would be the most natural thought of any casual observer, but like the charity which covers a multitude of sins, the brown-stone front often harbors numerous evils.

The visitor or sight-seer passing through the spacious halls and large, handsome rooms, would in all probability echo the verdict of the passer-by. But when the expert comes and the surface is penetrated, an entirely different exclamation comes from his lips. Here you have wide, airy rooms, whence do you obtain air to fill them? he inquires. The air is heated to an agreeable temperature, but was it pure before being heated? Here are means of ventilation and drainage very attractive to the eye; do they accomplish the object desired, or are there grave defects? These rooms are amply lighted, but is that light properly applied? These are the important questions which arise in the mind of the sanitary expert, and some of these, I am sorry to say, had to be answered in the negative, where a thorough inspection disclosed the true conditions which existed in the Jefferson Building. The building is heated by steam, and with the exception of some minor defects which might be remedied by an engineer, is very satisfactorily done. The building is ventilated by means of box shafts. There are two of these from each room, having exit-registers, and they communicate with the smoke-stack whereby a draught is obtained. The light is ample, and the seats are well arranged; a great defect, and one which was afterward found in other buildings, is the means of obtaining cold air. There does not yet exist in the minds of the public an adequate conception of the extent of the danger to health which is induced by a continual immersion of the body in impure air, notwithstanding the efforts which have been made in this direction for their enlightenment. Following these cold-air ducts in this building to the month I found that one led from directly over a sewer-trap; another led from a damp, close, and moldy area, while in every instance these ducts are conducted under the ground-floors of the building.

The building is well ventilated; but it is a waste of ventilation, we are told by the best authorities, if it is directed against avoidable pollutions of the air. The proper domain of ventilation begins when cleanliness has done its best. Air carried through these damp underground passages must become to a certain extent vitiated; and I was glad to note that some of the more recently constructed buildings take their supply from well above the surface. The furnace-room gave evidence of the regurgitation of sewage, and I was informed by the janitor that during storms the reflux was such as to endanger the fires. This defect in the drainage of the building is due, of course, to location; but it can be remedied by the application of "stop-valves"; and this should be done without further delay.

In the Franklin Building, again we were given an illustration of the adage "All is not gold that glitters." The ventilation of the east room of this building is imperfect; ventilating-shafts should be constructed in the towers as on the west side of the building.

The same imperfect air-ducts were found to exist here as in the Jefferson Building. On examination of the opening or entrance to the air-duct in the northeast yard, it was found that the same opening is used for a large sewer-pipe, and is a damp, moldy underground passage. The air-duct entering from the southeast yard is also used for a sewer-pipe, the latter being defective, and any escape of foul gases therefrom must necessarily be carried directly into the rooms of the building. The water-closets are also defective, and should be replaced by "flood troughs," such as are used in other buildings.

The building is well heated, but repairs to the boilers are necessary. If there is any possible means by which the supply of air can be taken

into these buildings from above the surface, such means should be adopted without further delay.

The Thompson Building on Twelfth street near K, northwest, is defectively ventilated, especially the third-floor front room.

The Sumner Building has the underground air-ducts, before alluded to, and the north walls of the rooms occupied by the janitor in the basement are damp. The latter defect can be remedied by extending the area from the northeast corner, but whether or not school-buildings should be inhabited at all by families is a question. The ordinary duties attendant upon housekeeping, such as cooking, washing, &c., create odors and impurities in the atmosphere from which buildings containing such a number of persons should be free; besides there is the liability of the building being rendered untenable for school purpose by the resident family being attacked by some contagious disease.

The rooms on the ground floor in the John F. Cook Building are poorly ventilated, while the heat is unevenly distributed. The one in the northwest corner of the building was overcrowded, and at time of the inspection the air there was very foul.

In this connection I would invite attention to the imminent danger in which many children are placed in consequence of the insufficiency of properly constructed and arranged school-rooms. Every school, I find, no matter where located or what may be the size of the room, has about the same number of scholars—usually 60. Whether in the large, wide, and high rooms of the Franklin Building or in the lowest narrow apartment of a former market-house, each teacher is allotted the same number of pupils. In the larger buildings where provision is made for the constant supply of fresh air and consequent displacement of that rendered impure, we find as high as 360 cubic feet of air for each pupil, while in some of the close, ill-ventilated buildings rented, 100 cubic feet and less for each is obtained.

In respiration we deteriorate an enormous quantity of air (about a gallon a minute), and we are constantly throwing off carbonic acid and organic matter. Every time we breathe, and we breathe about eighteen times per minute, we expel thirty cubic inches of air, which amount contains 1.29 cubic inches of carbonic acid, or 16.1 cubic feet in the 24 hours. In this 16 cubic feet of carbonic acid there are about $7\frac{1}{2}$ ounces by weight of charcoal. Air which has once been breathed should never be breathed again until it has been mingled with fresh air, in order that the impurities which it has acquired may be removed from it, and that it may regain a wholesome amount of moisture.

Air in many of the rented school-rooms of the District must of necessity be rebreathed. The vapor of human breath contains animal organic matter which decomposes and gives off various volatile nitrogenous compounds, which, although they may not themselves produce disease, undoubtedly lessen the power of the body to resist its attack.

In many of the smaller rented rooms the peculiar sickening odor of organic matter in the air was noticed even though the inspection took place at a season of the year when doors and windows could yet be left open.

The subject of securing properly ventilated rooms for school purposes cannot be too strongly urged upon those in authority; it comes home to every family; and as many diseases propagate themselves by eliminating their poisons through the medium of the exhalation and excretions of the body, polluted air is often the bearer of the organic poisons by which maladies are disseminated.

In the Seaton Building defective, offensive water-closets were found.

These closets are of the pattern known as the "hopper" or spring-valve closets, water being supplied only by the weight of the person during use. When these closets are used by children water is very often not supplied at all. They should be removed and replaced by "flood-troughs."

The handsome structure situated on Second between High and Market streets, Georgetown, known as the Custis Building, was, I am sorry to say, like some of the beautiful buildings of Washington, not without its defects. The air-ducts here, like those in the Jefferson and Franklin Buildings, are constructed underground. The entrances to these passages, six in number, were found damp, moldy, and wet, and containing filth and *débris* of all kinds. Two sewer-openings are located directly at the mouth of the air-ducts on the north side of the building; one a cesspool-trap, which at time of inspection had no water-seal, and the other an imperfect connection with down-spout.

Any escape of foul odors or noxious gases from these openings must necessarily be carried directly into the school-rooms. The cesspool should be removed at once, that opening closed, and the connection with down-spout carefully cemented. The area surrounding building was also filled with *débris* and filth. The heating and ventilation of the building are very satisfactory.

Teachers in every room had windows lowered from the top, and the expressions of a majority showed that the health and comfort of their scholars as well as their instruction were among their cares.

The sudden death at the Wallach Building some time since of two of the janitor's children, said to have died of malignant diphtheria, was the cause of some changes for the better in regard to ventilation, source of air-supply, &c. Yet there are some faulty conditions still existing which need remedy. In the heating of many of these larger buildings, the fact that north rooms require a greater degree of heat than those situated on the south side is not taken into consideration. The same supply is given each room regardless of situation, and while those persons in the rooms exposed to the northern winds suffer from lack of warmth, those in the ones on the south side, protected from the winds and given the sun, get more heat than they desire. This was found to be the case in the Wallach Building, the northeast corner rooms being damp and the occupants complaining of insufficient heat. The south room on the third floor is very defective in ventilation. A ventilating-shaft should be put in without delay. The water-closets here are improperly located, odors therefrom penetrating the school-rooms. They are connected directly with the main building on the ground-floor. The entrance to the closets from the building should be closed, or the closets should be removed. Considerable care has been exercised lately at this building in preventing anything that might prove injurious to health. It would be well for others to follow the example and not wait for some tragic occurrence to transpire before they throw out the safeguard.

The Chamberlain Building, that large wooden structure situated on East street, Georgetown, was found in only tolerable condition. At the time of inspection the air was foul in every room. The rooms, about 40 by 20, with high ceilings, have low windows and virtually no other means of ventilation. There is a box flue for ventilating purposes situated in the corner of each room, with latticed exits near ceiling and floor. But these exits, one and all, were closed, and indeed gave no evidence of ever having been in use. There were no visible means of opening the upper ones, and the only possibility of air entering the shaft through those below was where they had been broken or a lattice was misplaced. Only one stove is employed in each of these long rooms, and heat

must necessarily be unequally distributed. The yard and closets are in good condition, but no urinal is provided for the boys. This want should be supplied at once.

The Lincoln Building was found in good condition generally, an insufficiency of heat being, however, complained of in some rooms. The Lovejoy Building has no means of ventilation other than by raising or lowering the windows. The McCormick, Potomac, Stevens, and Bowen Buildings were in fair condition, as was also the Cranch Building. The Randall and Miner Buildings are excellent throughout.

The smaller buildings owned and rented may be distributed into three classes, according to condition, viz, the fair, the tolerable, and the totally unfit.

Among those classed as in fair condition may be mentioned the Larnier, Miller, and Barrett Buildings, and the ones corner Fourteenth and L streets, N. W.; Tenth and G streets, N. W.; corner High and Market streets, Georgetown; and corner Prospect and Lingan streets, Georgetown.

Those in only tolerable condition, and which have defects that I cannot attempt to point out at the present time, are situated as follows: On H between Thirteenth and Fourteenth streets, N. W.; corner Twenty-second and I streets, N. W.; corner Nineteenth and H streets, N. W.; Nineteenth between G and H streets, N. W.; N street, between Seventeenth and Eighteenth, N. W.; H between Second and Third, N. W.; P between Ninth and Tenth streets, N. W.; Sixth between L and M, N. W.; O street between Fourth and Fifth streets, N. W.; corner Ninth and S streets, N. W.; corner E and New Jersey avenue, N. W.; Fifth between M and N, N. W.; corner Fifth and I streets, N. W.; corner Seventh and G streets, S. E.; Ninth street between K and Virginia avenue, S. E.; corner Fifth and Virginia avenue, S. E.; E between Fifth and Sixth streets, S. E.; First between C and D streets, S. E.; corner Seventh and A streets, N. E.; Ninth between P and Q, N. W.; on Montgomery between Bridge and Olive streets; and on Third between High and Market streets, Georgetown. Only five of these buildings are the property of the District, the remainder being rented. The defects found in most of them are imperfect ventilation, unequal distribution of heat, poor light, damp walls, or insufficient air-space.

Those buildings totally unfit to be used as schools are located as follows, viz: On Third between L and New York avenue, N. W.; corner Fourth and L streets, N. W.; M, between Tenth and Eleventh streets, N. W.; corner Twentieth and R streets, N. W.; Fourteenth, between Ohio avenue and D street, N. W.; and corner Third and A streets, S. E.

The building on Third, between New York avenue and L, is unfit for human habitation. Here we found 140 children packed into two rooms, each 14 feet long, 22 feet wide, and 11 feet high. Of course the air, to one coming from the outside, was stifling. An attempt had been made to ventilate by cutting holes through the thin board walls of the structure, but it availed little, cold air being taken in, but the impurities not being carried out. The structure is dilapidated; and privy accommodations not being sufficient, fecal matter is deposited in the yard. It will be seen that there are but 85 and a fraction cubic feet of air allowed each pupil here, while the minimum quantity sanctioned by authorities is 200 cubic feet for each person, and this where provision is made for a constant supply of fresh air.

The building corner of Fourth and L streets is dark, the walls are damp, the ventilation is very imperfect, the privies are against the walls of the building, and are very defective. There was urine on the floors,

and this was soaking them and saturating the walls. There is no yard-room for scholars.

The building on M, between Tenth and Eleventh streets, is a dilapidated frame, with one room; the walls are damp, the light defective, there is no means of ventilation, an offensive privy is located within 15 feet of the back windows, and the yard is also damp, having no means of drainage.

The old brick structure, corner Twentieth and R, has a damp, unventilated cellar under the school-room, the walls show evidences of dampness, the drainage is defective, and the only ventilation obtained is by the windows. The building is generally unsuitable for school purposes.

The wood structure on Fourteenth between Ohio avenue and D street, N. W., contains one room, which is dark, has no means of ventilation other than by raising the windows, no ventilation under the floors, no proper means of drainage, and has filthy box-privies.

The building corner Third and A streets, S. E., formerly a market-house, is very deficient in air-space, and is poorly ventilated, the means of heating are defective, and gases from the stoves escape into the rooms.

I would recommend that all the premises described as unfit for school purposes be vacated as soon as proper accommodations can be obtained elsewhere.

TABULAR STATEMENTS.

The following tables show, by months, for the year ending June 30, 1878, the number and nature of nuisances reported, the amount and kind of unwholesome food condemned, the number and kind of marine products inspected and condemned, the amount of offal and dead animals removed from the District, the number of animals impounded, with their disposition, and a comparative statement showing the number of animals impounded during six years. These were compiled from the records, and are submitted without comment.

The report of the poundmaster is also submitted. This report is interesting, and the exhibit of work performed during the past year is very satisfactory.

REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 101

TABLE A.—Consolidated report of nuisances for the year ending June 30, 1878.

Nature of nuisance.	Months.											Total.	
	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.		June.
Alleys	51	28	38	29	19	31	2	19	47	33	45	15	357
Areas	1	1	6	5	3		1	2	5	1	1	1	27
Cellars	6	8	15	23	22	14	12	15	12	3	5	2	137
Drainage, surface ..	44	36	40	54	32	48	20	27	63	39	37	3	443
Excavations	1			3	6	8	2	4	3				27
Gutters	19	31	32	35	15	17	10	5	7	8	21	16	216
Garbage	19	58	16	25	11	26	11	16	27		2	8	219
Hog-pens	6	5	11	4	5	4	4	1	6	2	2		50
Houses, filthy	24	6	17	8	9	14	4	19	13	73	33	25	245
Houses, condemned ..	26	21	26	22	28	25	7	8	27	24	21	15	250
Houses, slaughter ..	1	1	3	5	3	1			5		2		21
Houses, no privy			3	1	5	2	8	2		2	2		27
Hydrants	5	2	3	7	2		1		1	2	3		26
Lots, filthy	3	8	21	11	10	3	6	3	10	15	11	2	103
Manure, heaps	83	44	40	61	35	35	28	30	66	43	53	5	523
Markets, public		2			5	12					2		21
Miscellaneous	66	51	63	56	22	35	61	61	103	39	116	73	746
Pumps	3	3	3	6	4				1				20
Pipes burst, water ..	5	1	4	8		10	3	3	5		8	1	48
Ponds, stagnant	20	18	44	56	14	32	12	11	75	20	46	12	360
Privies, filthy	176	96	163	108	104	170	183	186	316	207	200	82	1,991
Privies, full	867	1,101	922	165	106	174	181	221	417	236	244	111	4,745
Privy-boxes, leaky ..	79	68	134	93	59	62	58	52	114	71	83	23	896
Privies, dilapidated ..	17	12	28	19	3	16	8	4	35	10	14	5	171
Roofs, leaky	14	17	33	19	21	14	11	52	69	12	39		301
Sewers, public	29	22	5	17	17	9	9	16	58	15	28	23	248
Sewers, house-con-													
nection	39	5	55	26	7	33	1	6	30	17	28		247
Stables	77	72	39	30	25	32	14	30	32	47	51	7	456
Streets, filthy	4	2	6	18	9	4	3	1	8	4	8	3	70
Traps, sewer	16	6	18	13	20	6	7	5	2	5	6	11	115
Yards	127	72	34	48	46	56	41	87	198	162	132	54	1,057
Yards, cow	32	29	11	22	17	13	13	24	19	8	4	1	193
Vaults, privy				2	5	4		1	1	2	2		17
Water-closets	12	1	16	18	3	9	9	10	7	9	22	4	120
Total	1,872	1,827	1,849	1,017	692	919	730	921	1,784	1,109	1,271	502	14,493

TABLE B.—Uncholesterome food condemned during the year ending June 30, 1873.

[illegible]

TABLE C.—*Inspections and condemnations of marine products for the year ending June 30, 1876.*

Description.	Months.												Total.
	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	
INSPECTIONS.													
Shad.....									17,810	65,200	35,515	3,390	121,785
Herring.....									84,700	1,439,000	933,600	10,200	2,507,500
Tailors.....										32,875	7,550	40,425	
Fish.....	18,762	20,565	16,338	16,882	26,558	18,187	19,371	15,968	33,454	30,515	25,800	29,327	271,727
Sturgeon.....	167										556	337	1,060
Oysters.....	458	972	12,623	47,634	78,366	55,435	56,210	53,265	30,928	10,360	3,393	1,823	351,317
Clams.....	177,730	134,925	13,500						21,000	106,400	257,375	226,475	938,225
Crabs.....	65,650	51,770	4,575						20,000	63,205	78,775	82,475	366,450
CONDEMNATIONS.													
Fish.....	570	590	213	805	143	218	76	146	597	860	668	325	5,211
Sturgeon.....	29	6										6	41
Oysters.....	168	199	1,630	3,879	1,620	1,148	945	1,415	1,915	1,745	388	126	15,178
Clams.....	13,800	8,650	850									375	27,950
Crabs.....	11,950	9,270	375						2,000	10,405	7,550	4,275	48,825

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Offal and dead animals removed during year ending June 30, 1878.

Months.	Night-soil.	Garbage.	Dead animals.
	<i>Barrels.</i>	<i>Tons.</i>	
July	2,549	672	583
August	2,999	1,507 ³ / ₄	641
September	2,566	1,056 ³ / ₄	609
October	2,564	615	412
November	2,425	451	176
December	1,857	303	180
January	1,997	394	210
February	1,689	309	187
March	2,130	356	218
April	2,184	531	228
May	2,036	811	661
June	2,205	764	720
Totals	28,201	7,770 ³ / ₄	4,825

TABLE D.—Operations of the pound for the year ending June 30, 1878.

Months.	Animals impounded.							Disposition.					Cash received from fees and sales.		
	Horses.	Cows.	Mules.	Hogs.	Goats.	Goose.	Dogs.	Total.	Redeemed.	Killed.	Dogs killed.	Died.		Returned.	Sold.
July, 1877.	7	16	1	4	9	16	512	558	116	442	437	---	---	---	\$131 75
August, 1877.	1	8	---	4	10	8	467	498	90	399	394	---	---	---	104 00
September, 1877.	2	7	---	2	21	26	441	490	102	397	391	---	---	---	92 75
October, 1877.	2	34	---	12	11	19	257	328	98	229	221	---	---	1	147 50
November, 1877.	5	6	---	12	31	15	---	57	44	11	---	---	---	2	73 00
December, 1877.	5	13	1	1	18	---	---	37	29	7	---	---	---	1	49 00
January, 1878.	3	2	1	---	13	8	---	27	22	5	---	---	---	---	22 00
February, 1878.	1	---	---	---	7	8	---	18	12	6	---	---	---	---	13 00
March, 1878.	1	13	---	6	11	4	---	35	27	8	---	---	---	---	41 00
April, 1878.	7	6	---	---	17	---	---	30	16	11	---	---	---	3	34 00
May, 1878.	6	3	---	1	11	---	312	323	48	280	275	---	1	4	66 30
June, 1878.	---	---	---	1	6	15	639	661	78	579	579	---	---	4	72 25
Total.	44	109	2	17	162	119	2,828	3,081	701	2,374	2,297	---	1	15	846 55

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TABLE E.—Comparative statement showing number of animals impounded in the District of Columbia during the years 1872, 1873, 1874, 1875, 1876, and 1877.

Years.	Horses.	Cows.	Mules.	Hogs.	Goats.	Sheep.	Geese.	Dogs.	Total.
1872.....	88	225	.....	40	152	124	210	335	1,174
1873.....	128	359	36	93	186	38	165	1,081	2,086
1874.....	60	169	22	57	129	4	64	2,200	2,705
1875.....	36	118	15	23	142	.....	111	2,446	2,891
1876.....	36	60	5	3	162	.....	93	2,309	2,668
1877.....	30	75	10	17	168	.....	128	2,456	2,884
Total	378	1,006	88	233	939	166	771	10,827	14,408

NOTE.—The year 1878 could not be included in this table, owing to the date of report being three months earlier than in former years, thereby necessitating the inclusion of three months' work from preceding year in the accompanying table for 1878.

OFFICE OF THE POUNDMASTER,
Washington, October 30, 1878.

SIR: I have the honor to present herewith my report of the operations of the pound service for the year ending June 30, 1878.

The work during the year previous to your taking charge of the health department varied but little from that of previous years, but since the law imposing a tax on dogs in the District of Columbia, and instructing the poundmaster to take up all found running at large without the tax-tag, went into effect, the number of such animals impounded has increased to such an extent as to swell the list higher than ever known before since the inauguration of the service.

Many persons have, sooner than pay the tax of \$2 imposed by this law, turned over their dogs to the poundmaster, to meet the penalty of death, and others upon finding that the redemption fee had been increased, and it would be necessary after redeeming to also take out a license, have left their animals in pound; thus the number of dogs redeemed has decreased as the number in pound has increased.

DOGS.

The question of whence comes the large army of dogs which infest our two cities is still a conundrum. It would seem that the killing of these animals by thousands every year would at least decimate the worthless class; but who among us can say that the 12,747 dogs killed by the poundmaster during the past six years are missed? Indeed it would seem to me, like the adage in regard to gray hairs, two have appeared for every one removed. Now, however, that the war is to be continued unrelentingly the year around, and no time given them to recruit, we may hope ere long to see some diminution in their ranks.

The number of dogs impounded during the months heretofore prescribed for the taking up of those unmuzzled has increased regularly each year, and reference to the accompanying tables will show a large increase during the past over any previous year. These worthless curs have their haunts and harbors, just as certain classes of our population have theirs. I think I may safely say that nine-tenths of the dogs that have met death at our hands had previously found shelter (if not food) with the negroes who inhabit our alleys and back streets. There are certain localities where I never fail to find a supply, and no matter how

great the number impounded, their places are filled, probably an addition made, when we again visit the spot.

The act to create a revenue in the District of Columbia by levying a tax on all dogs therein, to make such dogs personal property, &c., which went into effect about the 15th of last July, has worked admirably; up to September 30, licenses had been issued for 3,308 dogs, and \$6,616 have thereby been brought into the treasury of the District. Yet I am of the opinion that three-fourths of our canine population still remain without their badge of respectability, the tax-tag. When we take into consideration the fact that during the three months this law has been in force we have killed at the pound 2,022 of these animals, captured with four men and one wagon, it would seem probable that the number running at large unlicensed must by far exceed that upon which taxes have been paid. There is one defect in this law which demands a remedy, and I would respectfully recommend that the attention of Congress at its next session be called to the same. Why is the dog law not enforced? is a question asked me daily. Persons who have paid the tax complain that their neighbors keep dogs unlicensed, and ask why it is allowed. The defect in the law is that it is frequently impossible to collect the fine imposed, and there is no other penalty attached to the keeping of an unlicensed dog excepting possible capture by the poundmen.

The poundmaster is not authorized to enter upon inclosed private property for the purpose of taking unlicensed dogs, and a person who keeps his dog chained in yard or stable can continue to avoid the payment of any penalty so long as the animal does not find his way upon the public street. These constantly-confined dogs are the ones who bark and howl at night, and it is of them most frequent complaints are made. The law should be so amended as to make it the duty of the Metropolitan police officers to report premises on which dogs are kept, and when taxes are not paid on said dogs within a specified time to go upon such premises in company with the poundmaster and impound the animal the same as if found running at large.

From reports and correspondence with some of our large cities I am satisfied that better results are accomplished by our system of impounding dogs than any other in vogue in this country. In Brooklyn, N. Y., with ten men employed, the number of dogs captured from July 1 to September 15, 1878, was between 1,200 and 1,300; while in this city, with four men and one wagon, there were over 2,000 taken during the same period. There they had some 4,200 licensed, the amount received from licenses, redemption, &c., footing up \$4,800; their expenses from July 1 to September 15, 1878, were \$2,300. Our expenses, including everything, for the same period did not reach quite \$575, or about one-fourth of that of the city above named.

The mode of killing unredeemed dogs is by pistol shot, and is as humane and prompt an execution as can be given. The animals are removed from the pen singly, the muzzle of a 32-caliber pistol is placed against the forehead and a bullet sent directly through the brain, causing instantaneous death. Of the 2,297 dogs killed during the year, not one has uttered a cry or scarce made a struggle after the discharge of the pistol.

GOATS.

In accordance with a recommendation contained in my last annual report, the fee required for redemption of a goat impounded was increased from \$1 to \$2, and in consequence thereof the number impounded has decreased considerably and a larger percentage have been killed.

These pestiferous animals should be, if possible, banished entirely from the city; they cause more trouble in their capture and do greater damage to property than any other quadruped. There are hundreds of them in the two cities, and although guarded more zealously by their owners than any other animal, yet they are constantly committing depredations upon the parks, trees, and shrubbery. They will positively hesitate at nothing which they can masticate, and lurch as complacently on brown paper and cigar stumps from the gutters as on the tender shoots of some young plant, or the bark of an unprotected tree.

For goats we are ever on the alert, and none found running at large are allowed to escape. We have, during the year, taken 143, and during the past six years 939 have been captured.

OTHER ANIMALS.

The number of horses and cows captured during the year shows an increase over that of the previous year, which may be accounted for by the fact that a late fall, mild winter, and early spring tempted owners to allow their stock to graze upon the commons to a greater extent than usual. Complaints coming to me during the year of damage being done by large animals at night on the outskirts of our cities, I have found it necessary to make midnight raids in certain localities frequently, and I may safely say that a majority of the horses captured during the year were taken at such times. These animals belonging to the poorer classes as a rule, and being used during the day in carts and other vehicles, were turned out to browse late at night, the owners hoping to be able to again confine them before daylight. This practice has, I think, been pretty effectually suppressed by the raids referred to.

I would here mention the practice of drovers and others driving cattle to and from drove-yards, railroad depots, markets, and slaughter-houses through any and all streets and public squares, endangering the lives of pedestrians and destroying the parking. I would therefore recommend that the driving of cattle be restricted to such streets as the honorable Commissioners may deem most proper for such purpose.

NECESSITIES OF THE SERVICE.

To render the pound service still more efficient, it is necessary that certain changes and improvements be made. These I will in a brief manner call to your attention.

The necessity for the extension of the field of our operations to cover the more densely populated suburbs of our cities is presented more strongly every day. Complaints are constantly made by residents on Seventh and Eighth streets north of Boundary, and in the villages of Mount Pleasant and Anacostia, of the depredations committed upon both public and private property by animals running at large. The dog law hereinbefore referred to does not confine the taking of dogs found unlicensed to the city limits; but, as I have received no instructions in this regard, I have not, so far, pushed my operations beyond the boundary-lines. Complaints are frequent regarding the running at large of dogs in the thickly-settled region lying north of Boundary street, between Third and Ninth streets northwest. In this locality are also found great numbers of other animals, and, if possible, some protection against their ravages should be afforded the inhabitants of that portion of the District. A bill providing for the prevention of domestic animals running at large in the county or more densely populated suburbs of Washington

and Georgetown was presented at the last session of Congress, but went over. I think if the passage of this bill could be secured the desired result would be attained. In the event of the extension of the pound laws to include the more densely populated suburbs mentioned above, it will be necessary to increase the pound force by the addition of three laborers and another horse and wagon.

I have previously called to your attention, and hope you will urge upon the honorable Commissioners of the District, the necessity of changing the location of the pound and fitting up of accommodations required for such an institution.

The pound as at present situated is totally unsuited for the purposes required. It is remote from any leading thoroughfare, beyond reach of water-supply or means of proper drainage, and by no way easy of access to the many persons who are compelled to call daily for animals impounded. It should be placed at the most central point possible where it can be kept free from offense, and where the advantages of water-supply and sewerage may be obtained. The present inclosure is about 40 by 40 feet, and has always been too small. At least one-half as much additional space is required. The yard should be properly paved with stone or concrete, and one entire side covered into a shed for the protection of animals, wagons, &c., during bad weather. A good, substantial stable for the accommodation of two or more horses, and an inclosure for storage of food for same. Two pens for confining the dogs impounded daily, to be supplied with water, and an office-room for use of poundmaster and watchman. As to material, place, and estimates for this work the inspector of buildings District of Columbia would, of course, be the one best qualified to judge and recommend. If a location could be decided upon where it would be free from complaint and become permanent, I would advise the construction of a good substantial brick building and inclosure. A pound will always be one of the necessities of the District, and as a permanent fixture it should be made substantial and not call for constant repair, as does the present tumble-down institution which bears that name.

The purchase of a new wagon for use in conveying small animals to the pound cannot be much longer delayed. The one used at present for that purpose has been in constant service for seven years, and is worn out and well-nigh worthless. A wagon designed expressly for this work should be built at once.

I would call to your attention the matter in regard to the animals taken up estray by Metropolitan police officers. It would seem perfectly natural that all animals taken up by them should be turned over to the poundmaster, but it is a rule with them when a horse is found astray considered to be worth \$40 or upward it is turned over to the property-clerk and placed in a livery-stable to await the appearance of the owner, who must pay charges and take the animal away. All should, I think, be turned over to the poundmaster, as the pound is the proper place for animals when found running at large, regardless of value.

The moral effect of having a Metropolitan police officer accompany the poundmaster has been great. Disturbances of the peace have been prevented, the annoyance of boys following the wagon and alarming animals stopped, interferences of all kinds avoided, the general working of the service much advanced, and the number of captures increased.

For the small force employed, I am convinced that our pound system is the most effective of any in this country, certainly far superior to that of any of the large Eastern cities with which I have become acquainted. We are constantly on the alert, working night and day, and

few animals running at large within the boundaries of our two cities escape us. Owners are becoming more and more careful and instances of damage to public and private property less frequent.

Trusting these suggestions and recommendations may meet with your favorable consideration, and the exhibit of my work for the year will prove satisfactory, and that I may continue to merit your confidence,

I remain, your obedient servant,

SAM'L EINSTEIN,

Poundmaster, District of Columbia.

SMITH TOWNSHEND, M. D.,

Health Officer, District of Columbia.

VITAL STATISTICS.

For the purpose of exhibiting as much information as possible regarding vital statistics, the following twelve tables and map have been prepared. They show the mortality, according to sex, color, age, locality, &c., with various percentages, for the nine months ending June 30, 1878.

The various percentages are taken from the total deaths for the nine months, and no attempt to estimate an annual death-rate has been made.

From Table I, we learn that the total mortality for the nine months is 3,023, distributed as follows: White males, 831, or 27.489 per cent., of the whole number of deaths; white females, 741, or 24.512 per cent.; colored males, 723, or 23.917 per cent., and colored females, 728, or 24.082 per cent.

We find here that the whites furnished 52.001 per cent. of the total deaths and the colored 47.999 per cent. The death-rate per 1,000 of the population for the two races being whites 13.67, and colored 32.24 per cent.

When we compare the death-rate of the two races, the colored being a little above one-fourth of the entire population, the great disparity between the white and colored is noticeable.

This table shows no case of either small-pox or Asiatic cholera, sun-stroke or yellow fever, but four deaths from intemperance, five suicides, and six homicides.

Of the principal diseases shown, phthisis pulmonalis, or consumption, stands at the head. From this disease we have 550 deaths, being 18.19 per cent., or nearly one-fifth of the total mortality; the white males furnishing 121, or 4 per cent; the white females 149, or 4.93 per cent.; the colored males 127, or 4.2 per cent., and the colored females 153, or 5.06 cent.

TABLE No. 1—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	AGE OF DECEASED.																				Percentage of each cause to total mortality.																
	Under 1 year.						1 to 2 years.						2 to 3 years.						3 to 4 years.						4 to 5 years.						Total under 5 years.						
	W.		C.		Total		W.		C.		Total		W.		C.		Total		W.			C.		Total		W.		C.		Total		W.		C.		Total	
	M.	F.	M.	F.	Total	M.	F.	M.	F.	Total	M.	F.	M.	F.	Total	M.	F.	M.	F.	Total		M.	F.	M.	F.	Total	M.	F.	M.	F.	Total	M.	F.	Total			
CLASS I.—ZYMOTIC DISEASES.																																					
Order 1.—Miasmatic.																																					
Measles.....																																					
Scarlet fever.....																																					
Diphtheria.....																																					
Whooping-cough.....																																					
Typhoid fever.....																																					
Erysipelas.....																																					
Dysentery.....																																					
Diarrhœa.....																																					
Cholera morbus.....																																					
Cholera infantum.....																																					
Enterocolitis.....																																					
Cerebro-spinal meningitis.....																																					
Intermittent fever.....																																					
Remittent fever.....																																					
Pyæmia.....																																					
Septicæmia.....																																					
Typho-malarial fever.....																																					
Malarial fever.....																																					
Total miasmatic diseases.....																																					
Order 2.—Etihetic.																																					
Syphilis, congenital.....																																					
Hydrophobia.....																																					
Total etihetic diseases.....																																					

TABLE No. 1.—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	SOCIAL RELATIONS.						NATIVITY.					
	Widow or widower.			Unknown.			District of Columbia.			Other parts of United States.		
	W.		C.	W.		C.	W.		C.	W.		C.
	M.	F.		M.	F.		M.	F.		M.	F.	
CLASS I.—ZYMOTIC DISEASES.												
Order 1.— <i>Diarrhetic</i> .												
Measles.....												
Scarlet fever.....							35	28		5	8	
Diphtheria.....							31	39		10	7	
Croup.....							13	12		1	6	
Whooping cough.....							2	1				
Typhoid fever.....	1		2				10	5		11	4	
Erysipelas.....							2	6		1		
Dysentery.....							6	4		1		
Cholera.....	1		1				14	13		6	3	
Cholera morbus.....												
Cholera infantum.....							25	16		1	2	
Enterocolitis.....							5	8				
Cerebro-spinal meningitis.....							5	3				
Intermittent fever.....										1		
Remittent fever.....	1	2	1				5	2		3	1	
Pyæmia.....							1	1		1	2	
Septicæmia.....												
Typho-malarial fever.....							2			1	2	
Malarial fever.....												
Total zymotic diseases.....	2	8	1	3			153	133		40	13	
Order 2.— <i>Enthetic</i> .												
Syphilis, congenital.....												
Hydrophobia.....							1					
Total enthetic diseases.....							1					

TABLE No. 1—Continued.

CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	Total deaths from each cause.	White.		Colored.		1877.						1878.													
						October.			November.			December.			Total first quarter.			January.							
						W.		C.		W.		C.		W.		C.		W.		C.					
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.				
CLASS I.—ZYMOTIC DISEASES.																									
Order 3.— <i>Dietic</i> .																									
Inanition.....	62	13	15	19	15	1	3	3	1	2	2	2	3	1	1	3	6	6	4	1	1	1	2		
Purpura.....	3	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Intemperance.....	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Bronchocle.....	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Total dietic diseases.....	73	16	19	23	15	1	3	3	1	2	3	2	3	1	3	2	4	9	7	4	2	2	1	2	
Order 4.— <i>Parasitic</i> .																									
Aphtha.....	4	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Total zymotic class.....	713	225	201	151	136	34	30	27	22	27	23	8	23	21	27	9	11	82	80	44	56	19	21	9	10
CLASS II.—CONSTITUTIONAL DISEASES.																									
Order 1.— <i>Diathectic</i> .																									
Rheumatism.....	5	3	1	2	3	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	
Dropsy.....	17	5	1	8	13	3	1	1	2	1	1	1	3	1	2	1	2	1	3	3	2	1	1	1	
Anasarca.....	33	5	8	7	13	1	1	1	2	1	1	1	3	1	2	1	2	1	6	2	1	1	1	1	
Cancer, mammary.....	7	1	7	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4	1	1	1	1	1	1	
Cancer of uterus.....	13	3	10	3	3	2	1	1	1	1	1	1	1	1	1	1	1	2	4	1	1	1	1	1	
Cancer of stomach.....	3	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Cancer of larynx.....	12	7	3	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	2	1	2	
Cancer of ovary.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Cancer of scalp.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Cancer of labia.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Cancer of lip.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Cancer of liver, &c.....	10	4	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Leucocythemia.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Lymphadenoma.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Rachitis.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Total diathetic diseases.....	108	28	36	20	24	4	4	1	4	3	3	2	4	4	2	2	4	7	9	5	12	5	5	2	1

TABLE No. 1.—Continued.
CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	AGE OF DECEASED.																Total.	Percentage of each cause to total mortality.				
	Under 1 year.		1 to 2 years.				2 to 3 years.				3 to 4 years.				4 to 5 years.				Total under 5 years.			
	W.		C.		W.		C.		W.		C.		W.		C.				W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			M.	F.	M.	F.
CLASS I.—ZYMOTIC DISEASES.																						
Order 3.— <i>Dietic.</i>																						
Inanition	8	11	15	12	1	1	3	1											9	14	18	14
Purpura					1		1		2												1	2
Intemperance																						
Bronchocle					1																1	
Total dietic diseases	8	11	17	12	1	2	4	1	2										9	15	21	14
Order 4.— <i>Parasitic.</i>																						
Aphtha			2	2																	2	2
Total zymotic class	60	47	78	59	26	18	24	16	19	16	9	11	19	15	9	4	10	13	3	11	134	109
CLASS II.—CONSTITUTIONAL DISEASES.																						
Order 1.— <i>Diathetic.</i>																						
Rheumatism																						
Dropsy																						
Anasarca						2															1	
Cancer, mammary																						
Cancer of uterus																						
Cancer of face																						
Cancer of stomach																						
Cancer of larynx																						
Cancer of ovary																						
Cancer of scalp																						
Cancer of labia																						
Cancer of lip																						
Cancer of liver, &c.																						
Leucocythemia																						
Lymphadenoma																						
Rachitis																						
Total diathetic diseases						2	1														1	
																</						

TABLE No. 1.—Continued.
CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

AGE OF DECEASED.

Cause of death.

Cause of death.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.		AGE OF DECEASED.
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TABLE No. 1.—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	AGE OF DECEDENT.												SOCIAL RELATIONS.					
	70 to 80 years.						80 to 90 years.						90 to 100 years.					
	W.			C.			W.			C.			W.			C.		
	M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		M.	F.	
CLASS I.—ZYMOTIC DISEASES.																		
Order 3.— <i>Dietic.</i>																		
Inanition																		
Purpura																		
Intemperance																		
Bronchocle																		
Total dietic diseases																		
Order 4.— <i>Parasitic.</i>																		
Aplha																		
Total zymotic class	1	3					1						1					
CLASS II.—CONSTITUTIONAL DISEASES.																		
Order 1.— <i>Dialhetic.</i>																		
Rheumatism																		
Dropsy	1	1																
Anasarca	1	1																
Cancer, mammary	1	2																
Cancer of uterus																		
Cancer of face	1																	
Cancer of stomach	1	1																
Cancer of larynx																		
Cancer of ovary																		
Cancer of scalp																		
Cancer of labia																		
Cancer of lip																		
Cancer of liver, &c.	1	1																
Leucocythemia																		
Lymphadenoma																		
Rachitis																		
Total dialhetic diseases	5	5	1	2									1	13	19	9	8	5

TABLE No. 1.—Continued.
CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	SOCIAL RELATIONS.										NATIVITY.									
	Widow or widower.					Unknown.					District of Columbia.					Other parts of United States.				
	W.		C.		F.	W.		C.		F.	W.		C.		F.	W.		C.		F.
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.	
CLASS I.—ZYMOTIC DISEASES. Order 3.— <i>Dietic</i> .																				
Ictæmia											11	14	18	15		1	1			
Purpura											1	1	2			1	1			
Infantumæria																1	1			
Bronchocæle																1	1			
Total diætic diseases											11	15	21	15		2	4		2	
CLASS II.—ZYMOTIC DISEASES. Order 4.— <i>Parasitic</i> .																				
Apltha																				
Total zymotic class																				
CLASS II.—CONSTITUTIONAL DISEASES. Order 1.— <i>Diætic</i> .											165	149	136	117		41	44	15	19	8
Rheumatism																				
Dropsy																				
Anasarca																				
Cancer, mammary																				
Cancer of uterus																				
Cancer of face																				
Cancer of stomach																				
Cancer of larynx																				
Cancer of ovary																				
Cancer of testis																				
Cancer of labia																				
Cancer of lip																				
Cancer of liver, &c																				
Leucocythæmia																				
Lymphadenoma																				
Rachitis																				
Total diætic diseases	7	8	3	11							1	6	6	7		15	18	14	17	12

TABLE No. 1.—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	REGISTRATION.										Percentage of each cause to total mortality.	DEATH-RATE.	
	Total by color and sex.											Deaths per 1,000 inhabitants.	
	Total by color.					Total by sex.							
	W.		C.		Total.	M.		F.		Total.			
	M.	F.	M.	F.		W.	C.		M.	F.		White.	Colored.
CLASS I.—ZYMOTIC DISEASES.													
Order 3.— <i>Dietic</i> .													
Icteric.....	13	15	19	15	34	28	34	39	32	36	62	.241	.756
Purpura.....	1	2	2	2	2	3	2	2	3	2	5	.026	.045
Intemperance.....	2	1	1	1	1	1	1	1	3	1	4	.026	.022
Bronchocle.....					1	1	1		1		2	.008	.022
Total dietic diseases.....	16	19	23	15	38	35	38	34	39	34	73	.304	.845
CLASS II.—CONSTITUTIONAL DISEASES.													
Order 4.— <i>Parasitic</i> .													
Aplthia.....			2	2	4		4	2		2	4	.089	
Total zymotic class.....	225	201	151	136	426	287	287	337	376	337	713	3,704	6,378
CLASS II.—CONSTITUTIONAL DISEASES.													
Order 1.— <i>Diathectic</i> .													
Rheumatism.....	3	1	2	3	3	3	2	5	5	4	9	.026	.045
Dropsy.....	2	8	14	13	11	6	11	13	13	4	17	.052	.241
Anasarca.....	5	7		13	20	7	20	12	12	21	33	.113	.415
Cancer, mammary.....											7	.067	.067
Cancer of uterus.....				3	3	10	3	13	2	13	3	.087	.087
Cancer of face.....		10		1	2	1	3	3	7	13	3	.017	.015
Cancer of stomach.....		1		1	2	10	2	4	8	4	12	.087	.045
Cancer of larynx.....	214	3	1	1	1	1	1	1	1	1	1	.033	.022
Cancer of ovary.....						1		1			1	.008	.008
Cancer of scalp.....		1		1	1	1	1	1	1	1	1	.022	.022
Cancer of labia.....				1	1	1	1	1		1	1	.022	.022
Cancer of lip.....				1	1	1	1	1		1	1	.022	.022
Cancer of liver, &c.....	1	5		1	9	1	1	6	4	6	10	.029	.022
Leucocythemia.....	4			1	1	9	1	1	1	1	3	.008	.008
Lymphadenoma.....	1				1	1	1	1	1	1	1	.009	.009
Rachitis.....					1	1	1	1	1	1	1	.022	.022
Total diathetic diseases.....	28	36	20	24	64	44	44	60	48	60	108	.556	.978

TABLE No. 1.—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	February.			March.			Total second quarter.			April.			May.			June.			Total third quarter.		
	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.
	M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		M.	F.	
CLASS II.—CONSTITUTIONAL DISEASES.																					
Order 1.— <i>Tubercular.</i>																					
Scrophulous	1	1		1			1	1	3				1			1	1		2	1	3
Scrophulous	13	19	13	18	18		15	40	52	18	20	16	7	11	10	11	21		32	42	41
Marasmus and tabes mesenterica			3		3		1	1	6	1	1	2	1	3	1	3	1		3	4	3
Hydrocephalus	1						1	1	1	1	2	2	1			1		2	1	3	3
Tubercular meningitis							1	1	1		2	2				1	1				
Tubercular pneumonia	1						1	1	2	1	1	2				1	1		1	1	2
Tubercular bronchitis							1	1	2				1		3						
Tuberculosis							1	1	2	1	1	2							1	1	2
Total tubercular diseases	15	19	20	24	20	18	50	66	62	46	49	27	10	17	13	22	15	15	41	51	56
Total constitutional class	17	23	24	25	28	21	62	79	66	46	17	23	30	12	22	16	21	20	50	65	67
CLASS III.—LOCAL DISEASES.																					
Order 1.— <i>Verminous.</i>																					
Meningitis	1	1	1	4	1		1	5	1	2	1	1	2	1		1	3	1	2	1	5
Cerebritis	2	1					2	2	1												1
Abscess of brain	4			6	3		1	12	3	1	2	2	2	2	1	1	1	2	3	6	3
Apoplexy	2						1	1	1	1	2	2	1	1	1	3	1	3	3	4	1
Softening of brain							3	3	1			1						1	2	1	1
Insanity													1	1	1	9	1	5	10	9	27
Epilepsy	5	8	5	1	4	2	2	7	20	10	3	9	1	1	7	2	1	3	16	5	21
Paralysis	1	3	2	3	6	3	6	9	3	1	1	1	2	2				4	4	1	1
Paralysis (general)							1	1	2												
Paraplegia			1				1	1	1												
Progressive locomotor ataxia							1	1	1												
Tetanus							2	1	6	13			1	3		1	1	1	1	1	12
Tritismus nascentium				1	1	2	2	1	6	13		3	4			1	1	1	1	1	7
Laryngismus stridulus							3	1	4	1	1	2							6		4
Congestion of brain	3	1		6	1	1	12	3	1	4	1	1	1	3		1	1	1	6		4

TABLE No. 1—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	AGE OF DECEASED.																		Percentage of each cause to total mortality.		
	Under 1 year.			1 to 2 years.			2 to 3 years.			3 to 4 years.			4 to 5 years.			Total under 5 years.					
	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
CLASS II.—CONSTITUTIONAL DISEASES.																					
Order 2.— <i>Tubercular.</i>																					
Scrofula	2	2	1		1	1	1										3	3	3	9	11,298
Psoas abscess																					
Phthisis pulmonalis	1	5	8	1	1	5	4	1	1	2	7	1	2	1	3	3	8	20	20	51	1,687
Marasmus and tabes mesenterica	3	6	5	2	2	1	2	1									5	7	9	4	9,827
Hydrocephalus	4	1	1	2	1	2	1										4	5	3	5	9,562
Tubercular meningitis	3				1	1	3	2	3	1	2	1	1	1	1	4	1	2	5	17	9,397
Tubercular peritonitis																					
Tubercular pericarditis																					
Tubercular bronchitis	1	4	2			5	2	1								1	1	9	5	1	9,033
Tuberculosis																		15	5	15	9,496
																					9,132
Total tubercular diseases	12	14	20	17	4	6	19	12	1	2	4	10				17	24	49	44	134	4,432
Total constitutional class	12	14	20	17	4	8	20	12	1	2	5	10				18	26	54	46	144	4,763
CLASS III.—LOCAL DISEASES.																					
Order 1.— <i>Nervous.</i>																					
Meningitis	9	6	5	5	1	4	3		2		1					14	10	9	6	39	1,290
Cerebritis	1	1	1	1	1	1				1	2	1				1	3	3	2	11	.365
Abscess of brain																					
Apoplexy																					.006
Softening of brain																					
Insanity																					.083
Epilepsy																					
Convulsions																					
Paralysis (general)	19	15	37	24	3	2	13	11	2	3	3	1	2	1		1	25	23	55	38	4,065
Paraplegia																					.083
Hemiplegia																					
Progressive locomotor ataxia																					
Tetanus																					
Trismus nascentium	5	3	24	38																	
Laryngismus stridulus	1																				
Congestion of brain	10	2	2	3	1	4															

TABLE No. 1.—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

AGE OF DECEDENT.

Cause of death.	5 to 10 years.				10 to 20 years.				20 to 30 years.				30 to 40 years.				40 to 50 years.				50 to 60 years.				60 to 70 years.				
	W.	C.	M.	F.	W.	C.	M.	F.	W.	C.	M.	F.	W.	C.	M.	F.	W.	C.	M.	F.	W.	C.	M.	F.	W.	C.	M.	F.	
CLASS II.—CONSTITUTIONAL DISEASES.																													
Order 2.— <i>Tubercular.</i>																													
Scrophulous	2	2			1																								
Scrophulous																													
Phthisis pulmonalis	1	1	8	9	10	12	33	26	54	29	38	36	33	18	22	25	18	15	12	13	14	9	8	10	6	3			
Mariasmus and tabes mesenterica						1	1																						
Hydrocephalus																													
Tubercular meningitis																													
Tubercular peritonitis																													
Tubercular ophthalmitis																													
Tubercular																													
Tuberculous																													
Total tubercular diseases	2	1	13	11	9	10	13	35	26	55	30	40	38	33	18	22	27	19	16	16	12	13	14	10	8	10	6	3	
Total constitutional class	2	1	13	13	9	10	15	35	28	57	31	40	39	35	19	25	35	28	19	20	19	24	15	14	12	15	12	8	
CLASS III.—LOCAL DISEASES.																													
Order 1.— <i>Nervous.</i>																													
Meningitis																													
Cerebritis																													
Abscess of brain																													
Apoplexy																													
Constriction of brain																													
Insanity																													
Epilepsy																													
Convulsions																													
Paralysis (general)																													
Paraplegia																													
Hemiplegia																													
Progressive locomotor ataxia																													
Tetanus																													
Tetanus masticum																													
Laryngismus stridulus																													
Constriction of brain																													

TABLE No. 1—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	SOCIAL RELATIONS.										NATIVITY.										
	Widow or widower.					Unknown.					District of Columbia.					Other parts of United States.					
	W.		C.		F.	W.		C.		F.	W.		C.		F.	W.		C.			
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.		
CLASS II.—CONSTITUTIONAL DISEASES.																					
Order 2.— <i>Tubercular.</i>																					
Scrophula																					
Phthisis pulmonalis																					
Marasmus and tabes mesenterica	7	30	13	17							34	59	39	61	48	54	88	92	39	36	
Hydrocephalus											5	6	8	4		2	2				
Tubercular meningitis											5	5	3	5							
Tubercular peritonitis											4	1	4	5							
Tubercular bronchitis											1							1			
Tuberculosis											1	10	5	1		1					
												3	1					2	2		
Total tubercular diseases	7	30	13	19							50	74	72	87	49	58	91	98	41	36	
Total constitutional class	14	38	16	30							51	80	78	94	64	76	105	115	53	48	
CLASS III.—LOCAL DISEASES.																					
Order 1.— <i>Verminous.</i>																					
Meningitis																					
Cerebritis											15	8	9	7	3	3		4			
Abscess of brain											4	3	3	1	1	1					
Apoplexy	4	10	2	9							1										
Softening of brain	1	5									3	2	1		13	8	6	18	8	8	
Insanity											3				2	6	1		3	2	
Epilepsy											1				1	2	1		2		
Convulsions											2										
Paralysis (general)											25	23	50	37		1		5	1	1	
Paraplegia	1	10		2							1	4	1		10	6	5	4	3	4	
Hemiplegia											1				1						
Progressive locomotor ataxia															1	1	2	2		1	
Tetanus	1																				
Trismus nascentium																					
Laryngismus stridulus												3	24	38							
Congestion of brain	2	2									13	10	5		8	3	2	1	1	1	

TABLE No. 1.—Continued.
CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	RECAPITULATION.										Percentage of total mortality.	Deaths per 1,000 inhabitants.	Color.		
	Total by color and sex.					Total by sex.									
	W.		C.		Total by sex.	W.		C.		Total deaths.			White.		
	M.	F.	M.	F.		M.	F.	M.	F.						
CLASS II.—CONSTITUTIONAL DISEASES.															
Order 2.—Tubercular.															
Scrofula		3		5	6		2	11		5	9	14	.463	.026	.244
Pneum. abscess	1									1		2	.006	.008	.002
Phthisis pulmonalis	121	149	127	153	302	270	280	16	13	350	18.195	2.348	6.222	.356	.113
Myocarditis and tubes mesenterica	5	8	10	6	16	13	16	10	8	29	.087	.087	.178	.006	.006
Hydrocephalus	5	5	3	5	8	10	6	8	10	18	.463	.045	.200	.009	.009
Tubercular meningitis	4	1	4	5	9	4	5	1	6	14	.080	.017	.333	.017	.017
Tubercular peritonitis	1	1	10	5	12	2	15	11	6	33	.562	.297	.133	.026	.026
Tubercular bronchitis	1	1	3	3	7	3	6	3	4	9	.287	.026	.133	.026	.026
Tuberculosis	2	1													
Total tubercular diseases	140	168	163	185	333	306	348	373	413	636	21.700	2.678	7.733		
Total constitutional class	168	204	183	209	413	372	392	413	764	764	25.273	3.235	8.711		
CLASS III.—LOCAL DISEASES.															
Order 1.—Verrous.															
Meningitis	18	11	9	11	27	29	20	27	22	49	1.621	.252	.445		
Cerebritis	5	4	4	3	9	9	7	1	2	16	.529	.078	.156		
Abscess of brain	1			2	2	1	1	1	1	3	.009	.008	.014		
Apoplexy	24	18	7	18	31	42	25	31	36	67	2.216	.365	.536		
Softening of brain	8	8	1		9	16	1	9	8	17	.562	.139	.322		
Insanity	4		1		5	4	1	5	1	6	.199	.035	.045		
Epilepsy	2		1	1	3	3	1	2	2	4	.132	.026	.022		
Convulsions	29	23	55	38	81	49	93	61	61	142	4.098	.426	2.067		
Paralysis (general)	13	14	6	4	19	27	10	19	18	37	1.224	.235	.222		
Paraplegia	2	1	2	2	3	3		2	1	3	.099	.026	.088		
Paraplegia	1			2	1	1	4	3	2	5	.166	.009	.009		
Progressive locomotor ataxia	1	1	1	1	3	1	1	1	1	3	.033	.009	.044		
Tetanus	5	3	24	38	41	8	62	29	41	70	2.316	.070	1.378		
Trismus vasculorum	1				1	1	1	1	2	3	.099	.009	.044		
Laryngismus stridulus	1				1	1	1	1	2	3	.099	.009	.044		
Congestion of brain	22	13	7	8	29	35	15	21	21	50	1.654	.305	.333		

TABLE No. 1—Continued.
CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	AGE OF DECEDENT.																Total.	Percentage of each cause to total mortality.																																
	Under 1 year.				1 to 2 years.				2 to 3 years.				3 to 4 years.						4 to 5 years.				Total under 5 years.																											
	W.		C.		W.		C.		W.		C.		W.		C.				W.		C.		W.		C.																									
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			M.	F.	M.	F.	M.	F.	M.	F.																								
CLASS III.—LOCAL DISEASES. Order 1.— <i>Nervous</i> .																																																		
	Organic disease of brain																																																	
	Tumor of brain																																																	
Anemia of brain																																																		
Total nervous diseases																								45	27	70	73	6	11	16	12	4	5	8	3	3	2	1	1	2	1	1	3	60	46	96	92	1	.033	
Order 2.— <i>Circulatory</i> .																																																		
Aneurism of the aorta																																																		
Cardiac hypertrophy																																																		
Angina pectoris																																																		
Early degeneration of the heart																																																		
Pericarditis																																																		
Endocarditis																																																		
Valvular disease of the heart																																																		
Embolism																																																		
Epistaxis																																																		
Disease of the heart (miscellaneous)																																																		
Hypertrocardium																																																		
Cavities																																																		
Total circulatory diseases																																																		
Order 3.— <i>Respiratory</i> .																																																		
Laryngitis																																																		
Bronchitis																																																		
Pneumonia																								6	9	10	4																							
Pleuritis																								17	6	50	36	2	2	16	22	3	3	7	9	1	1	4	4											
Hydrothorax																																																		
Total																																																		
																																				</														

TABLE No. 1.—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	SOCIAL RELATIONS.										NATIVITY.									
	Widow or widower.					Unknown.					District of Columbia.					Other parts of United States.				
	W.		C.		W.		C.		W.		W.		C.		W.		C.		W.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																				
Order 1.— <i>Verminous.</i>																				
Organic disease of brain.....																				
Amnesia.....																				
Aneurism of brain.....																				
Total nervous diseases.....	9	27	2	15	4				74	53	94	97	44	29	26	31	20	14		
Order 2.— <i>Circulatory.</i>																				
Aneurism of the aorta.....	1										1		3			1				
Cardiac hypertrophy.....		1																		
Angina pectoris.....		1		1					1				6	1		2		1		
Fatty degeneration of the heart.....	1	3		2					1				2	1		3		1		
Pericarditis.....	1	1							1				1	1		1		2		
Endocarditis.....									1		2	4	1	8	9	7	3	1		
Valvular disease of the heart.....	4	4		4	1				1				1	2	1	2	3	1		
Endocarditis.....		1		1																
Epistaxis.....											1		1							
Disease of the heart (undefined).....																				
Disease of the pericardium.....																				
Carditis.....																				
Total circulatory diseases.....	8	11	4	8	1				11	5	4	4	23	17	15	17	7	9		
Order 3.— <i>Respiratory.</i>																				
Laryngitis.....																				
Bronchitis.....																				
Pneumonia.....	5	1		2					5	12	14	8	1	2	3	3	15	16	8	
Pleuritis.....		20	5	4	1				29	21	83	81	18	20	28	1	1	1		
Hydrothorax.....									1			1		1						

TABLE No. 1—Continued.
CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	RECAPITULATION.										Percentage of each cause to total mortality.	Deaths per 1,000 inhabitants.	DEATH-RATE.	
	Total by color and sex.					Total by color.								
	W.		C.		Total by sex.	W.		C.		Total deaths.				
	M.	F.	M.	F.		M.	F.	M.	F.					
CLASS III.—LOCAL DISEASES.														
Order 1.— <i>Verminous.</i>														
Organic disease of brain	1					1	2			3	.099	.009	.045	
Tumor of brain	2					2				2	.066	.017		
Anemia of brain	1					1				1	.033	.009		
Total nervous diseases	138	96	120	128	258	234	248	234	224	482	15.944	2.035	5.511	
Order 2.— <i>Circulatory.</i>														
Aneurism of the aorta.	4		1		5	4	1			5	.166	.035	.022	
Cerebral hypertrophy	1		1		2	3	2			5	.166	.026	.045	
Angina pectoris	7	2	2	2	11	9	2	2	4	11	.364	.078	.045	
Fatty degeneration of the heart	3	3		3	9	6	3	3	6	9	.277	.052	.067	
Pericarditis	6	3	3	1	13	6	1	1	3	10	.333	.079	.067	
Endocarditis	3	2			5	3				3	.166	.044		
Valvular disease of the heart	14	11	9	11	35	25	20	23	27	45	1.488	.217	.445	
Embolism	2	4	2	3	11	6	6	5	7	12	.387	.032	.132	
Epistaxis			1		1		1	1		2	.033		.022	
Disease of the heart (undefined)	1	1	1		3	2	1	2	1	3	.089	.017	.022	
Hydropicardium		3	1		4	3		1	3	4	.132	.026	.045	
Carditis			2		2			2		2	.066			
Total circulatory diseases	41	31	19	21	60	72	40	40	52	112	3.705	.626	.889	
Order 3.— <i>Respiratory.</i>														
Laryngitis	1		2		3	1		2		3	.089	.009	.045	
Bronchitis	7	14	17	11	39	21	26	24	25	49	1.623	.272	.585	
Pneumonia	63	49	111	96	219	112	207	174	143	319	10.521	.474	4.660	
Pleuritis				1	1	1		1		2	.066	.009	.022	
Hydrothorax	2	2		2	6	4	2	2	4	6	.198	.035	.044	

TABLE No. 1—Continued.

CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	Total deaths from each cause.	1877.												1878.																													
		White.						Colored.						October.						November.						December.						Total first quarter.						January.					
		M.			F.			M.			F.			W.			C.			M.			F.			W.			C.			M.			F.			W.			C.		
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.						
CLASS III.—LOCAL DISEASES.																																											
Order 3.— <i>Respiratory.</i>																																											
Congestion of lungs.....	46	14	12	12	8					2	1	1	2	1					1	1	1	2	4	2	3	2	1	1															
Hæmoptysis.....	11	3	4	2	2																																						
Edema of lungs.....	7	4	3																																								
Abscess of the lungs.....	1	1																																									
Tonsillitis.....																																											
Total respiratory diseases.....	445	96	85	144	120	2	3	7	8	8	4	8	10	7	6	16	12	17	13	31	30	22	15	20	13																		
Order 4.— <i>Digestive.</i>																																											
Stomatitis.....	1	5	1	4	2						1	2							1																								
Gastritis.....	16	4	3		1				1	1				1					2	2																							
Gastro-enteritis.....	4	4			2																																						
Peritonitis.....	14	8	2		1														4	1																							
Jaundice.....	4	1		1															1	1																							
Intussusception of intestines.....	3	2	1																1	1																							
Hæmorrhoids.....	2	2																																									
Dysentery.....	10	3	3	3	2						1	1							2	1																							
Colic.....	2	2	1	1	1																																						
Hæmatemesis.....	3	1	1	1							1								1	1																							
Girrhosis of liver.....	2	2																																									
Hepatitis.....	5	1	4		1														1	1																							
Ulcer of stomach.....	2	2			1																																						
Intestinal hæmorrhage.....	1	1			1														2																								
Intestinal perforation.....	1	1																	1																								
Abscess of liver.....	2	1																																									
Enteritis.....	24	11	6	4	3	1	1	1	1	1	1	1		1																													
Congestion of liver.....	1	1																																									
Ulceration of the intestines.....	1	1																																									
Total digestive diseases.....	99	41	26	19	13	9	2	1	2	4	5	2		4	1	3	2	17	8	6	4	4	5																				

TABLE No. 1—Continued.
CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

1878.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Cause of death.	February.						March.						Total second quarter.						April.						May.						June.						Total third quarter.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
	W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.		W.		C.		F.	

TABLE No. 1.—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	AGE OF DECEASED.																Total.	Percentage of each cause to total mortality.								
	Under 1 year.				1 to 2 years.				2 to 3 years.				3 to 4 years.						4 to 5 years.				Total under 5 years.			
	W.		C.		W.		C.		W.		C.		W.		C.				W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																										
Order 3.— <i>Respiratory.</i>																										
Congestion of lungs.....																										
Hæmoptysis.....																										
Edema of lungs.....																										
Abscess of the lungs.....																										
Tonsillitis.....																										
Total respiratory diseases.....																										
Order 4.— <i>Digestive.</i>																										
Stomatitis.....																										
Gastritis.....																										
Gastro-enteritis.....																										
Peritonitis.....																										
Jaundice.....																										
Intussusception of intestines.....																										
Hæmorrhoids.....																										
Hæmatemesis.....																										
Dysentery.....																										
Colic.....																										
Hæmatemesis.....																										
Chirrhosis of liver.....																										
Hepatitis.....																										
Ulcer of stomach.....																										
Intestinal hæmorrhage.....																										
Intestinal perforation.....																										
Abscess of liver.....																										
Enteritis.....																										
Congestion of liver.....																										
Ulceration of the intestines.....																										
Total digestive diseases.....																										

TABLE No. 1.—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

AGE OF DECEASED.

Cause of death.

CLASS III.—LOCAL DISEASES.

Order 3.—*Respiratory.*

Congestion of lungs.....

Hemoptysis.....

Edema of lungs.....

Abscess of the lungs.....

Tonsillitis.....

Total respiratory diseases.....

Order 4.—*Digestive.*

Stomatitis.....

Gastritis.....

Gastro-enteritis.....

Peritonitis.....

Jaundice.....

Intussusception of intestines.....

Hernia.....

Dentition.....

Colic.....

Hæmatemesis.....

Cirrhosis of liver.....

Hepatitis.....

Ulcer of stomach.....

Intestinal hemorrhage.....

Intestinal perforation.....

Abscess of liver.....

Enteritis.....

Congestion of liver.....

Ulceration of the intestines.....

Total digestive diseases.....

5 to 10 years.			10 to 20 years.			20 to 30 years.			30 to 40 years.			40 to 50 years.			50 to 60 years.			60 to 70 years.		
W.	M.	F.	W.	M.	F.	W.	M.	F.	W.	M.	F.	W.	M.	F.	W.	M.	F.	W.	M.	F.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.
1		1						1		2	1	1	1	1	2					
1					1	1		1		1		1					2			
									1						1		2			
								1		1					2	1		1		
4	2	4	7			1	4	6	3	10	5	11	5	6	9	6	7	1	9	17

TABLE No. 1—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	SOCIAL RELATIONS.										NATIVITY.																
	Widow or widower.					Unknown.					District of Columbia.					Other parts of United States.					Foreign.						
	W.		C.		M.	W.		C.		M.	W.		C.		M.	W.		C.		M.	W.		C.		M.	F.	
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.		M.	F.					
CLASS III.—LOCAL DISEASES.																											
Order 3.— <i>Respiratory.</i>																											
Congestion of lungs.....																											
Hemoptysis.....																											
Edema of lungs.....																											
Abscess of the lungs.....																											
Tonsillitis.....																											
Total respiratory diseases.....																											
Order 4.— <i>Digestive.</i>																											
Stomatitis.....																											
Gastritis.....																											
Gastro-enteritis.....																											
Peritonitis.....																											
Jaundice.....																											
Intussusception of intestines.....																											
Hernia.....																											
Dysentery.....																											
Colic.....																											
Hematemesis.....																											
Cholera of liver.....																											
Hepatitis.....																											
Ulcer of stomach.....																											
Intestinal hemorrhage.....																											
Intestinal perforation.....																											
Abscess of liver.....																											
Enteritis.....																											
Congestion of liver.....																											
Ulceration of the intestines.....																											
Total digestive diseases.....																											

TABLE No. 1.—Continued.
CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

DURATION OF RESIDENCE.

Under 1 year.			1 to 5 years.		5 to 10 years.		10 to 20 years.		20 to 30 years.		30 to 40 years.		40 years and upwards.		Unknown.													
W.	C.		W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.														
M. F.	M. F.		M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.													
Cause of death.																												
CLASS III.—LOCAL DISEASES.																												
Order 3.— <i>Respiratory.</i>																												
Congestion of lungs.....																												
8	6	3	4	2	4	4	2	2	1	1	1	1	1	2	.....												
Hæmoptysis.....																												
1								1	1	2	1	1	1	1	.....												
Gedema of lungs.....																												
1									2	1	2	1	1	1	.....												
Abscess of the lungs.....																												
									1	1	1	1	1	1	.....												
Tonsillitis.....																												
																											
35	23	65	47	15	21	40	47	9	8	9	10	8	20	9	11	9	3	5	9	3	2	2	5	12	5	2	1
Total respiratory diseases.....																												
Order 4.— <i>Digestive.</i>																												
Stomatitis.....																												
1						1							1	2	2	1	1	1	1	1	1	1		
Gastritis.....																												
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gastro-enteritis.....																												
1				3					1		3	1	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1
Peritonitis.....																												
Jaundice.....																												
Intussusception of intestines.....																												
											1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Hernia.....																												
2	2	3	1	1	1	1	1	1																			
Dentition.....																												
													1														
Colic.....																												
												1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Hæmatemesis.....																												
												1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Cirrhosis of liver.....																												
												1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Hepatitis.....																												
											1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Ulcer of stomach.....																												
											1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1
Intestinal hæmorrhage.....																												
																											
Intestinal perforation.....																												
											1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Abscess of liver.....																												
																											
Enteritis.....																												
6	5	3	2	1		7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Congestion of liver.....																												
																											
Ulceration of the intestines.....																												
																											
Total digestive diseases.....																												
9	8	10	4	5	3	2	4	2	4	...	1	11	2	5	4	4	4	2	...	6	1	...	4	4

TABLE No. 1.—Continued.
CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

1878.

Cause of death.

CLASS III.—LOCAL DISEASES.

Order 5.—*Triumph*.

Nephritis.....
Nephritis (Bright's disease).....
Diabetes.....
Cystitis.....
Hematuria.....

Total urinary diseases.....

Order 6.—*Generative*.

Ovarian tumor.....
Uterine tumor.....
Metritis.....
Uterine hemorrhage.....

Total generative diseases.....

Order 7.—*Locomotority and osseous*.

Albescens (phlegmonous).....
Cellulitis.....
Curvature of spine.....
Retropharyngeal abscess.....
Gangrene of foot.....
Ulceration of leg.....

Total locomotority and osseous diseases.....

Total local class.....

February.			March.			Total second quarter.			April.			May.			June.			Total third quarter.		
W.	C.	M.	W.	C.	M.	W.	C.	M.	W.	C.	M.	W.	C.	M.	W.	C.	M.	W.	C.	M.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1</															

TABLE No. 1.—Continued.
CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	AGE OF DECEDENT.														Percentage of each cause to total mortality.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
	Under 1 year.				1 to 2 years.		2 to 3 years.		3 to 4 years.		4 to 5 years.		Total under 5 years.			Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	W.		C.		W.	C.	W.	C.	W.	C.	W.	C.	W.	C.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
CLASS III.—LOCAL DISEASES. Order 5.— <i>Urinary.</i> Nephritis..... Nephria (Bright's disease) Uraemia..... Diabetes..... Cystitis..... Hematuria..... Total urinary diseases..... Order 6.— <i>Generative.</i> Ovarian tumor..... Uterine tumor..... Metritis..... Uterine hemorrhage..... Total generative diseases..... Order 7.— <i>Locomotor and osseous.</i> Abscess (phlegmonous) Cellulitis..... Curvature of spine..... Retropharyngeal abscess..... Gangrene of feet..... Ulceration of leg..... Total locomotor and osseous diseases..... Total local class.....																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						</

TABLE No. 1.—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	AGE OF DECEASED.																	
	5 to 10 years.		10 to 20 years.		20 to 30 years.		30 to 40 years.		40 to 50 years.		50 to 60 years.		60 to 70 years.					
	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																		
Order 5.— <i>Urinary.</i>																		
Nephritis.....	1	1															1	2
Nephritis (Bright's disease).....	1	1															3	1
Pyelitis.....			1														1	1
Diabetes.....					1												1	1
Cystitis.....																	1	1
Hematuria.....																		
Total urinary diseases.....	1	3	1	2		2	1	1	1	4	1		6	1	2	1	1	5
Order 6.— <i>Generative.</i>																		
Ovarian tumor.....																		
Uterine tumor.....																		1
Metritis.....																		2
Uterine hemorrhage.....																		1
Total generative diseases.....																		2
Order 7.— <i>Locomotor and osseous.</i>																		
Abscess (phlegmonous).....																		1
Cellulitis.....																		1
Curvature of spine.....																		1
Retropharyngeal abscess.....																		1
Gangrene of foot.....																		1
Ulceration of leg.....																		1
Total locomotor and osseous diseases.....																		1
Total local class.....	13	3	6	12	9	4	2	10	16	12	12	13	28	10	15	19	45	20
																		23
																		16
																		13
																		44
																		39
																		14
																		10

TABLE No. 1—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	AGE OF DECEDENT.										SOCIAL RELATIONS.							
	70 to 80 years.			80 to 90 years.			90 to 100 years.			Above 100 years.			Married.			Single.		
	W.	C.		W.	C.		W.	C.		W.	C.		W.	C.		W.	C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																		
Order 5.— <i>Urinary.</i>																		
Nephritis.....	1												1			1		1
Nephria (Bright's disease).....	1			1									10	2	3	1	3	1
Uremia.....													1	2		1	2	2
Diabetes.....													1			2		
Cystitis.....	1	1		1										2				
Hematuria.....													1			1		
Total urinary diseases.....	2	1	1	2									14	4	6	1	8	4
Order 6.— <i>Generative.</i>																		
Ovarian tumor.....																		
Uterine tumor.....	1													1			1	
Metritis.....																		
Uterine hemorrhage.....														1				1
Total generative diseases.....	1													2			1	1
Order 7.— <i>Locomotor and osseous.</i>																		
Abscess (phlegmonous).....																1		2
Cellulitis.....																		
Curvature of spine.....													1					
Retrolaryngeal abscess.....													1				2	1
Gangrene of feet.....																		
Gangrene of leg.....				1	1								1				1	1
Ulceration of leg.....																		
Total locomotory and osseous diseases.....				1	1								3	1	1		2	4
Total local class.....	29	33	15	15	8	12	6	6				1	132	62	66	36	181	225

TABLE No. 1—Continued.
CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	SOCIAL RELATIONS.										NATIVITY.															
	Widow or widower.					Unknown.					District of Columbia.					Other parts of United States.					Foreign.					
	W.		F.		C.	W.		F.		C.	W.		F.		C.	W.		F.		C.	W.		F.		C.	
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES.																										
Order 5.— <i>Triary.</i>																										
Nephritis.....																										
Nephritis (Bright's disease).....	1																									
Uremia.....																										
Diabetes.....																										
Cystitis.....	2																									
Hematuria.....																										
Total urinary diseases.....	3	1		1								12	4	3	3	3	7	3	5	2						
Order 6.— <i>Generative.</i>																										
Ovarian tumor.....																										
Uterine tumor.....																	1							1		
Metritis.....																										
Uterine hemorrhage.....																										
Total generative diseases.....																	1		2					1		
Order 7.— <i>Locomotor and osseous.</i>																										
Abscess (phlegmonous).....																										
Cellulitis.....																										
Curvature of spine.....																										
Retropharyngeal abscess.....																										
Gangrene of foot.....																										
Ulceration of leg.....																										
Total locomotory and osseous diseases.....																										
Total local class.....	27	71	13	35	6							164	120	219	210	119	92	96	86	63	46					

TABLE No. 1—Continued.
CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	DURATION OF RESIDENCE.																															
	Under 1 year.			1 to 5 years.			5 to 10 years.			10 to 20 years.			20 to 30 years.			30 to 40 years.			40 years and upwards.			Unknown.										
	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.		F.									
CLASS III.—LOCAL DISEASES. Order 5.— <i>Urinary.</i>																																
	1	1					2	1																								
Order 6.— <i>Generative.</i>	2	1			4			3	2	1	3	1	1	3	2	1		4	2	1	4											
Total generative diseases																																
Order 7.— <i>Locomotor and osseous.</i>	1		1																													
																									</							

TABLE No. 1.—Continued.
CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	RECAPITULATION.										Percentage of each cause to total mortality.	DEATH-RATE.	
	Total by color and sex.					Total by color.						Deaths per 1,000 inhabitants.	
	C.					Total by sex.						White.	Colored.
	W.					Total by sex.							
M.	F.	M.	F.	W.	C.	W.	M.	F.					
CLASS III.—LOCAL DISEASES.													
Order 5.— <i>Urinary.</i>													
Nephritis.....	2	2	3	1	4	5	3	3	8	.265	.035	.088	
Nephritis (Bright's disease).....	14	3	5	3	17	19	6	6	25	.827	.148	.178	
Dysuria.....	1	4	3	2	8	7	3	6	8	.265	.052	.045	
Diabetes.....	3	3	2	3	3	5	5	5	3	.069	.026	.045	
Cystitis.....	3	2	2	3	3	5	5	5	3	.165	.026	.045	
Hematuria.....	1	1	1	1	3	1	1	1	1	.033	.008	.....
Total urinary diseases.....	25	9	10	6	34	35	15	15	50	1.654	.295	.356	
Order 6.— <i>Generative.</i>													
Ovarian tumor.....	.....	2	.....	1	2	.....	3	3	3	.009	.017	.022
Uterine tumor.....	.....	1	.....	1	.....	.....	1	1	1	.033	.022	.045
Morbid.....	.....	.....	.....	2	.....	.....	2	2	2	.007	.....	.....
Uterine hemorrhage.....	.....	1	.....	.....	1	.....	1	1	1	.033	.009	.....
Total generative diseases.....	.....	3	.....	4	3	4	.....	7	7	.232	.026	.089
Order 7.— <i>Locomotor and osseous.</i>													
Abscess (phlegmons).....	1	1	.....	2	2	2	1	3	4	.132	.017	.044
Cellulitis.....	.....	.....	1	1	.....	1	1	1	1	.033	.022	.045
Curvature of spine.....	2	2	2	1	2	4	1	5	5	.165	.017	.007	
Retropharyngeal abscess.....	1	.....	.....	1	1	1	.....	1	1	.033	.009	.....
Gangrene of feet.....	.....	.....	.....	1	.....	.....	1	1	1	.034	.018	.022
Ulceration of leg.....	1	1	.....	.....	2	.....	1	1	2	.066	.....	.....
Total locomotory and osseous diseases.....	5	2	3	4	7	7	8	6	14	.463	.001	.155	
Total local class.....	346	252	315	246	598	611	661	548	1,269	39.993	5.200	13.578	

TABLE No. 1.—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	1878.											
	February.			March.			Total second quarter.			May.		
	April.			June.			Total third quarter.					
	W.	M.	F.	W.	M.	F.	W.	M.	F.	W.	M.	F.
CLASS IV.—DEVELOPMENTAL DISEASES.												
Order 1.—Children.												
Premature birth.....	2	2	3	1	3	1	4	3	6	3	2	1
Atelectasis pulmonum.....	1						1	3	3	1	1	
Cyanosis.....							1	1	1			
Atresia ani.....							1	1	1			
Unilateral hemorrhage.....				1	1	1	1	1	1	1	1	1
Spina bifida.....				1	1	1	1	1	1	1	1	1
Infans neonatorum.....	1	1	1	1	1	1	1	1	1	1	1	1
Congenital debility.....	1	1	1	1	1	1	1	1	1	1	1	1
Total developmental diseases of children.....	3	3	3	2	8	1	5	2	12	5	12	7
Order 2.—Women.												
Parturition.....							1	1	1			
Puerperal hemorrhage.....							1	1	1			
Puerperal metritis.....	1						1	1	1			
Puerperal peritonitis.....	2			1			4	2	3	1	1	1
Puerperal convulsions.....	1						1	2	1	3	1	1
Puerperal proclivity.....							1	1	1			
Puerperal albuminuria.....							1	1	1			
Total developmental diseases of women.....	4	4	4	1	1	1	6	3	3	2	2	2
Order 3.—Old age.												
Senile debility.....	2	4	2	3	2	2	3	7	5	6	8	1
Senile gangrene.....									1			
Total diseases of old age.....	2	4	2	3	2	2	3	7	5	7	8	1

TABLE No. 1.—Continued.
CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	AGE OF DECEDENT.														Total under 5 years.	Percentage of each cause to total mortality.							
	Under 1 year.				1 to 2 years.				2 to 3 years.				3 to 4 years.				4 to 5 years.						
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
CLASS IV.—DEVELOPMENTAL DISEASES.																							
Order 1.—Children.																							
Premature birth	18	9	16	13														18	9	16	13	56	1.853
Atelectasis pulmonum	4	3	4	4														4	3	4	4	15	.496
Cyanosis	1	1	1	2														1	1	1	2	5	.165
Atresia ani	1																	1				1	.033
Umbilical hemorrhage	1		2															1		2		3	.099
Spina bifida	1	1	1															1	1	1		3	.099
Intestinal neonatorum	1	1	2	1														1	1	2	1	5	.166
Congenital debility	3	2	2	6														3	2	2	6	13	.430
Total developmental diseases of children	30	17	28	26														30	17	28	26	101	3.341
Order 2.—Women.																							
Parturition																							
Puerperal hemorrhage																							
Puerperal metritis																							
Puerperal peritonitis																							
Puerperal convulsions																							
Placenta previa																							
Pregnancy albuminuria																							
Total developmental diseases of women																							
Order 3.—Old age.																							
Senile debility																							
Senile gangrene																							
Total diseases of old age																							

TABLE No. 1.—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	1878.																													
	February.				March.				Total second quarter.				April.				May.				June.				Total third quarter.					
	W.	C.	M.	F.	W.	C.	M.	F.	W.	C.	M.	F.	W.	C.	M.	F.	W.	C.	M.	F.	W.	C.	M.	F.	W.	C.	M.	F.		
CLASS IV.—DEVELOPMENTAL DISEASES.																														
Order 4.— <i>Nutrition.</i>																														
Asthenia.....					1	2																								
Total developmental class.....	5	11	5	5	11	4	7	6	20	18	20	18	2	1	...	1	1	1	...	2	...	1	1	1	...	3	2	4	1	4
CLASS V.—VIOLENCE.																														
Order 1.— <i>Accidents and negligence.</i>																														
Tetanus from wound (traumatic).....																														
Burns.....																														
Poisoned by sausage.....																														
Poisoned by morphia.....																														
Poisoned by leadum.....																														
Neglect at birth.....																														
Peritonitis from injuries.....																														
Drowned.....																														
Suffocation from being overlaid.....																														
Suffocation from neglect.....																														
Concussion and compression of brain.....																														
Dislocation of neck.....																														
Fracture of skull.....																														
Fracture of pelvis by fall.....																														
Gunshot wound.....																														
Fracture of femur.....																														
Killed by cars.....																														
Total deaths by accidents and negligence.....	3	3	...	3	3	1	2	...	8	6	4	8	4	...	5	3	4	...	1	...	7	1	2	...	15	1	8	3		

TABLE No. 1.—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	AGE OF DECEASED.										SOCIAL RELATIONS.											
	70 to 80 years.		80 to 90 years.		90 to 100 years.		Above 100 years.		Married.		Single.		W.	M.	F.	W.	M.	F.	W.	M.	F.	
	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.										
CLASS IV.—DEVELOPMENTAL DISEASES. Order 4.— <i>Nutrition.</i>	1	1	1	1	1	1																
	11	11	10	6	8	13	3	10	4	3	4	6	9	25	11	17	33	24	31	30		
	Total developmental class																					
	CLASS V.—VIOLENCE.																					
	Order 1.— <i>Accidents and negligence.</i>																					
	Tetanus from wound (traumatic)																					
	Burns																					
	Poisoned by sausage																					
	Poisoned by morphia																					
	Poisoned by laudanum																					
Neglect at birth																						
Peritonitis from injuries																						
Drowned																						
Suffocation from being overlaid																						
Suffocation from neglect																						
Suffocation, strangled in eating																						
Concussion and compression of brain																						
Dislocation of neck																						
Fracture of skull																						
Fracture of pelvis by fall																						
Gunshot wound																						
Fracture of femur																						
Killed by cars																						
Total deaths by accidents and negligence																						

TABLE No. 1.—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	SOCIAL RELATIONS.										NATIVITY.																
	Widow or widower.					Unknown.					District of Columbia.					Other parts of United States.					Foreign.						
	W.		C.		F.	W.		C.		F.	W.		C.		F.	W.		C.		F.	W.		C.		F.		
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.		M.	F.
	2	2				2	1									1	1	1									
	10	24	8	26	1		1				30	28	32	33	13	35	19	40	10	16							
Total developmental class																											
CLASS V.—VIOLENCE.																											
Order 1.—Accidents and negligence.																											
Tetanus from wound (traumatic).....1.....1.....1.....2.....																											
Burns.....																											
Poisoned by sausage.....																											
Poisoned by morphia.....																											
Poisoned by landanum.....																											
Neglect at birth.....1.....1.....1.....																											
Peritonitis from injuries.....																											
1.....1.....1.....2.....3.....1.....2.....1.....1.....																											
Suffocation from being overlaid.....																											
Suffocation from cold.....																											
Suffocation strangled in eating.....																											
Concussion and compression of brain.....																											
Dislocation of neck.....																											
1.....1.....1.....1.....1.....1.....																											
Fracture of skull.....																											
3.....1.....1.....1.....																											
Fracture of pelvis by fall.....																											
2.....																											
Gunshot wound.....																											
1.....1.....1.....1.....1.....																											
Fracture of femur.....																											
Killed by cars.....																											
2.....1.....1.....16.....4.....12.....11.....11.....5.....6.....3.....6.....1.....1.....																											
Total deaths by accidents and negligence.....																											

TABLE No. 1.—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	RECAPITULATION.										Percentage of each cause to total mortality.	Deaths per 1,000 inhabitants.	White.	Colored.	
	Total by color and sex.					Total by color.			Total by sex.						
	W.		C.		Total.	W.	C.	Total.	M.	F.					
	M.	F.	M.	F.											
CLASS IV.—DEVELOPMENTAL DISEASES.															
Order 4.— <i>Nutrition.</i>															
Asthma	4	6	3	5	18	10	8	18	7	11	.595	.086	.177		
Total developmental class	33	73	51	73	250	126	124	250	104	146	8.270	1.095	2.755		
CLASS V.—VIOLENCE.															
Order 1.— <i>Accidents and negligence.</i>															
Tetanus from wound (traumatic)	2	1	1	7	11	3	12	15	5	9	.009	.026	.022		
Burns	2	2	5	1	10	2	1	3	2	1	.463	.017	.267		
Poisoned by sausage	1	1	1	1	4	1	1	2	1	1	.006	.009	.022		
Poisoned by morphia	1	1	1	1	4	1	1	2	1	1	.006	.018	.008		
Poisoned by leadum	1	1	1	1	4	1	1	2	1	1	.033	.008	.008	.178	
Neglect at birth	1	2	1	1	5	2	3	5	4	1	.009	.018	.022	.111	
Peritonitis from injuries	9	4	4	1	18	9	5	14	13	1	.463	.079	.111		
Drowned	1	1	1	1	4	1	1	2	2	1	.006	.008	.022		
Suffocation from being overlaid	1	1	1	1	4	1	1	2	1	1	.033	.009	.022		
Suffocation from neglect	1	1	1	1	4	1	1	2	1	1	.033	.009	.022		
Suffocation and compression of brain	1	1	2	1	5	1	2	3	3	1	.009	.008	.045		
Dislocation of neck	1	1	1	1	4	1	1	2	1	1	.033	.009	.022		
Fracture of skull	6	1	1	1	9	7	1	8	6	1	.292	.001	.008		
Fracture of pelvis by fall	1	1	1	1	4	1	1	2	1	1	.033	.008	.008		
Gunshot wound	6	1	1	1	9	6	1	7	6	1	.199	.026	.022		
Fracture of femur	1	2	1	1	5	3	1	4	2	2	.132	.026	.022		
Killed by cars	1	1	1	1	4	1	1	2	2	1	.007	.009	.022		
Total deaths by accidents and negligence	33	10	19	14	76	43	33	76	52	24	2.514	.374	.733		

TABLE No. 1.—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

1878.

Cause of death.	February.		March.		Total second quarter.		April.		May.		June.		Total third quarter.	
	W. C.		W. C.		W. C.		W. C.		W. C.		W. C.		W. C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS V.—VIOLENCE.														
Order 2.—Homicide.														
Punctured wound														
Gunshot wound														
Compression of brain	1				1									
Infanticide	1				1									
Total deaths by homicide	1				1									
Order 3.—Suicide.														
Incised wound														
Gunshot wound					1								1	
Hanging														
Total deaths by suicide					1								1	
Total violent class	4	4	3	3	10	7	8	4	5	3	5	1	16	8
Grand total from all causes by sex	82	76	66	62	106	92	80	68	283	251	226	215	422	305
Grand total from all causes by color	158	128	198	148	534	441	445	174	190	184	210	226	545	584
Percentage from all causes by color in each per- cent of life to total mortality	5.22	4.24	6.55	4.89	17.66	14.59	4.80	5.76	6.28	6.09	6.94	7.47	18.02	19.32
Rate of deaths per 1,000 inhabitants (white and colored)	1.37	2.84	1.72	3.29	4.64	9.80	1.26	3.87	1.65	4.08	1.83	5.02	4.74	12.97
Rate of deaths per 1,000 inhabitants (total)	.99	.80	1.24	.93	3.34	2.76	.90	1.08	1.19	1.15	1.31	1.42	3.40	3.65

TABLE No. 1—Continued.
CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	AGE OF DECEDENT.																		Total.	Percentage of each cause to total mortality.
	Under 1 year.			1 to 2 years.			2 to 3 years.			3 to 4 years.			4 to 5 years.			Total under 5 years.				
	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.		
	M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		M.	F.			
CLASS V.—VIOLENCE.																				
Order 2.—Homicide.																				
Puncture wound.....																				
Gunshot wound.....																				
Compression of brain.....																				
Infanticide.....	1																	1	.033	
Total deaths by homicide.....	1																	1	.633	
Order 3.—Suicide.																				
Incised wound.....																				
Gunshot wound.....																				
Hanging.....																				
Total deaths by suicide.....																				
Total violent cases.....	2	1	6	5	1	1	1	1	1	1	1	1	1	2	3	3	10	10	26	.860
Grand total from all causes by sex.....	187	132	273	228	40	47	85	65	32	28	32	39	28	20	23	16	14	16	1,338	44.200
Grand total from all causes by color.....	319	501	87	150	60	71	48	39	30	33	544	794								
Percentage from all causes by color in each period of life to total mortality.....	10.56	16.58	2.88	4.96	1.98	2.34	1.59	1.29	.99	1.09	18.00	26.26								44.20
Rate of deaths per 1,000 inhabitants (white and colored).....	2.77	11.13	.76	3.33	.52	1.58	.42	.87	.26	.73	4.73	17.64								
Rate of deaths per 1,000 inhabitants (total).....	1.99	3.13	.54	.94	.38	.45	.30	.24	.19	.20	3.40	4.96								8.36

TABLE No. 1—Continued.
CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	AGE OF DECEASED.												SOCIAL RELATIONS.					
	70 to 80 years.						80 to 90 years.						90 to 100 years.					
	Above 100 years.			Married.			Single.			W.			M.			F.		
	W.	M.	F.	W.	M.	F.	W.	M.	F.	W.	M.	F.	W.	M.	F.	W.	M.	F.
CLASS V.—VIOLENCE.																		
Order 2.—Homicide.																		
Puncture wound.....																		
Gunshot wound.....																		
Compression of brain.....																		
Infanticide.....																		
Total deaths by homicide.....																		
Order 3.—Suicide.																		
Incised wound.....																		
Gunshot wound.....																		
Hanging.....																		
Total deaths by suicide.....																		
Total violent class.....																		
Grand total from all causes by sex.....	47	58	29	27	17	25	11	17	4	3	6	1	7	250	185	151	112	532
Grand total from all causes by color.....	105		56	42	28		4	9				8	435		263		932	1,053
Percentage from all causes by color in each period of life to total mortality.....	3.47		1.85	1.39	.93		.13	.30				.27	14.39		8.70		30.83	34.83
Rate of deaths per 1,000 inhabitants (white and colored).....	.91		1.24	.37	.62		.64	.20				.18	3.78		5.84		8.10	23.40
Rate of deaths per 1,000 inhabitants (total).....	.65		.35	.26	.18		.03	.05				.05	2.72		1.64		5.82	6.58

TABLE No. 1.—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	SOCIAL RELATIONS.										NATIVITY.									
	Widow or widower.					Unknown.					District of Columbia.					Other parts of United States.				
	W.		C.		M.	W.		C.		M.	W.		C.		M.	W.		C.		
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.		M.	F.			
CLASS V.—VIOLENCE.																				
Order 2.—Homicide.																				
Puncture wound.....																				
Gunshot wound.....																				
Compression of brain.....	1																			
Infanticide.....																				
Total deaths by homicide.....	1										1				3					
Order 3.—Suicide.																				
Incised wound.....																				
Gunshot wound.....										1								1		
Hanging.....	1																	2		
Total deaths by suicide.....	1																	3		
Total violent class.....	2	2		1						1		17	5	13	11	13	5	9	3	
Grand total from all causes by sex.....	54	144	38	95	7					2		427	382	478	465	250	246	244	263	
Grand total from all causes by color.....	198		133		7	2	809		943		496		507		267			1		
Percentage from all causes by color in each period of life to total mortality.....	6.55		4.40		.23	.07	26.75		31.19		16.42		16.77		8.83			.03		
Rate of deaths per 1,000 inhabitants (white and colored).....	1.73		2.95		.06	.05	7.04		20.96		4.31		11.26		2.32			.02		
Rate of deaths per 1,000 inhabitants (total).....	1.24		.83		.04	.02	5.05		5.90		3.10		3.17		1.66			.01		

TABLE No. 1—Continued.
 CONSOLIDATED ABSTRACT OF DEATHS IN THE DISTRICT OF COLUMBIA FROM OCTOBER 1, 1877, TO JUNE 30, 1878.

Cause of death.	DURATION OF RESIDENCE.															
	Under 1 year.		1 to 5 years.		5 to 10 years.		10 to 20 years.		20 to 30 years.		30 to 40 years.		40 years and upwards.		Unknown.	
	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.
Puncture wound.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.
Gunshot wound.																
Compression of brain.	1															
Infanticide																
Total deaths by homicide.	1		1				2		1		1		1			
Order 2.— <i>Homicide.</i>																
Incised wound.																
Gunshot wound.	1		1													
Hanging																
Total deaths by suicide.	1		1													
Order 3.— <i>Suicide.</i>																
Total violent class.	4	2	7	5	3	6	6	3	1	1	1	2	5	3	1	1
Grand total from all causes by sex.	234	170	289	238	165	143	169	175	84	89	62	72	122	116	30	27
Grand total from all causes by color.	404	527	308	344	173	134	233	286	187	57	97	27	144	60	21	16
Percentage from all causes by color in each period of life to total mortality.	13.36	17.43	10.19	11.38	5.72	4.43	7.87	9.46	6.19	1.89	3.21	.89	4.76	1.99	.70	.53
Rate of deaths per 1,000 inhabitants (white and colored).	3.51	11.71	2.68	7.64	1.50	2.98	2.07	6.36	1.63	1.27	.84	.60	1.26	1.33	.18	.85
Rate of deaths per 1,000 inhabitants (total).	2.53	3.29	1.92	2.17	1.08	.85	1.49	1.76	1.17	.35	.60	.17	.90	.38	.13	.10

Tables 2 and 3 show the number of deaths from phthisis pulmonalis, divided as to color and sex and different periods of life, with percentages.

It will be perceived that the females furnished the greater number of deaths in both races. The colored, being a little over one-quarter of the total population, furnishes more deaths than the whites; and the death rate from this disease per one thousand of their population is nearly three times that of the whites. Still, when we compare the percentages of each to the total mortality we find the colored males are some 3 per cent. above the white, while among the females the difference is less than 1 per cent.

The deaths from this disease under five years is 9.273 per cent. of the total, 2 per cent. being furnished by the whites, the remainder by the colored.

Between the ages of five and ten the whites supply the most deaths, a little over 5 per cent. of the total occurring during this period.

Between ten and twenty we have 11.818 per cent. of the total deaths, the colored furnishing over 8, the colored female furnishing 6 per cent. alone.

Between twenty and thirty we have the greatest number of deaths, the percentage to the total being 25.818. This period presents another remarkable comparison that is sustained between the sexes of each race; the white female being thirty-three more than the white male, her percentage being 6 above his; the colored female being 9 more than the colored male, with a percentage of 1.536 in excess of his.

Between thirty and forty we have 19.091 per cent. of the total deaths, the whites furnishing nearly two-thirds.

The disease furnishing the next highest number of deaths is pneumonia. From this cause we have 319 deaths, or a percentage of 10.55 of the total mortality; the white male furnishing sixty-three cases or 2.08 per cent., the white female forty-nine cases or 1.62 per cent., the colored male one hundred and eleven cases or 3.67 per cent., and the colored female ninety-six cases or 3.18 per cent.

It will thus be seen that pneumonia is a peculiarly fatal disease for the colored people, as they furnish nearly two-thirds of all the cases. A still more remarkable fact is shown when we compare the relative mortality from this disease under five years of age. There is a total of 187 deaths or 58.62 per cent., under five years of age, distributed by race and sex as follows: The white male 23 or 7.21 per cent., the white female 12 or 3.76 per cent., the colored male 78 or 24.45 per cent., and the colored female 74 or 23.2 per cent. That is, the colored race furnishes a death rate of this disease, among the children under five years of age, more than four times that of the white.

Of the deaths of children under five years of age we have a total of 1,338, or 44.26 per cent. of the total mortality. This number is furnished in the following proportion by color and sex: male whites 301, or a percentage of 22.5 to the total mortality; of the children under five years of age, the white female 243 or 28.16 per cent., the colored male 423 or 31.61 per cent., and the colored female 371 or 27.73 per cent.; and the ratios to the total mortality are as follows: white males 9.96, white females 8.04, colored male 13.99, and colored females 12.27; the deaths per 1,000 of the population of each race being for the whites 4.734, and the colored 17.644, showing a greater difference between the ratios of the two races than was obtained from the total deaths as previously noted.

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TABLE No. 2.—Showing total deaths from phthisis pulmonalis, with percentages, for nine months ending June 30, 1878.

	White.		Colored.		Total.
	Male.	Female.	Male.	Female.	
Total deaths	121	149	127	153	550
Percentage to mortality from this disease	23.	27.09	23.09	27.82	100.
Percentage to total mortality	4.	4.53	4.2	5.06	18.19
Percentage to total mortality of each sex and color	14.53	20.11	17.57	21.02	
Death rate per 1,000 for each color	2.35		6.22		

TABLE No. 3.—Showing deaths from phthisis pulmonalis by color, sex, and ages, with percentages, for the nine months ending June 30, 1878.

	Under 5 years of age.					From 5 to 10 years.				
	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.	
Total deaths	3	8	20	20	51	11	1	8	9	29
Percentage to total mortality from this disease .....	.546	1.455	3.636	3.636	9.273	2.	.182	1.455	1.636	5.273
	From 10 to 20 years.					From 20 to 30 years.				
	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.	
Total deaths	10	10	12	33	65	21	54	29	38	142
Percentage to total mortality from this disease	1.818	1.818	2.182	6.	11.818	3.818	9.818	5.273	6.909	25.818
	From 30 to 40 years.					From 40 to 50 years.				
	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.	
Total deaths	32	33	18	22	105	23	18	16	15	72
Percentage to total mortality from this disease	5.818	6.	3.273	4.	19.091	4.182	3.273	2.909	2.727	13.091
	From 50 to 60 years.					From 60 to 70 years.				
	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.	
Total deaths	12	13	14	9	48	7	10	6	3	26
Percentage to total mortality from this disease	2.182	2.364	2.545	1.636	8.727	1.273	1.818	1.091	.545	4.727

Total deaths from phthisis pulmonalis, &c.—Continued.

	From 70 to 80 years.					From 80 to 90 years.				
	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.	
Total deaths.....	1	2	3	4	10	1	.....	1	.....	2
Percentage to total mortality from this disease.....	.182	.364	.545	.727	1.818	.182	.....	.182	.....	.364

For the purpose of condensing and presenting as graphically as possible, tables 4 and 5 have been prepared. They show the total deaths under five years of age divided according to color and sex, and the fourteen most important diseases. In the table headed, "From all other diseases," are included the number of deaths from consumption and pneumonia, the prematurely born, and those who died from want of proper development, &c.

Table 5 shows the number of deaths from each disease occurring in children under five years, with percentage to the total mortality under five years of age, and also the same percentage according to race and sex. By these figures we find that diphtheria and scarlet fever each furnished less than 5 per cent. of the total deaths among the children, and were much more fatal with the white than the colored. From diarrheal diseases and cholera infantum we have more than 12 per cent. of these deaths, the different races and sexes being more nearly balanced than in some others. The "Diseases of the brain and its membranes" furnished over 6 per cent. of the deaths, the whites being in a majority. Of the other diseases affecting the nervous system, viz, convulsions and trismus, we have a plentiful supply, the same being 15.77 per cent. of the total. In these two the colored are in a decided majority, they furnishing 11.59 and the whites 4.18 per cent.

TABLE No. 4.—*Showing total number of deaths of children of five years of age and under, by color and sex, with percentages, for nine months ending June 30, 1878.*

	White.		Colored.		Total.
	Male.	Female.	Male.	Female.	
Total deaths.....	301	243	423	371	1,338
Percentage to mortality of this class.....	22.5	28.16	31.61	27.73	100.
Percentage to total mortality.....	9.96	8.04	13.99	12.27	44.26
Death-rate per 1,000 for each color.....	4.73		17.64		.....

TABLE No. 5.—*Showing mortality from the fourteen principal diseases of children of five years of age and under, classified as to color and sex, with percentages, for nine months ending June 30, 1878.*

Diseases.....	Cholera infantum.						Diarrhical diseases.						Diphtheria.						Scarlet fever.						Croup.					
Color.....	White.			Colored.			White.			Colored.			White.			Colored.			White.			Colored.			White.			Colored.		
Sex.....	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.			
Number deaths.....	25	17	42	14	14	28	26	17	43	24	99	99	24	21	45	24	9	10	64	23	18	41	14	11	25	14	9	8	42	
Percentage to total mortality.....	1.87	1.27	3.14	1.045	1.045	2.09	1.94	1.27	3.21	1.80	7.40	1.80	1.80	1.57	1.67	1.80	.67	.74	4.78	1.72	1.35	3.07	1.05	.82	1.87	.67	.60	3.14	3.14	
Diseases.....	Whooping-cough.						Measles.						Convulsions.						Trismus nascentium.						Marasmus, takes mesenteric, hydrocephalus, and tubercular meningitis.					
Color.....	White.			Colored.			White.			Colored.			White.			Colored.			White.			Colored.			White.			Colored.		
Sex.....	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.			
Number deaths.....	2	1	3	4	14	18	2	.....	2	1	3	6	25	23	48	141	5	3	24	38	70	13	13	26	13	14	27	14	54	
Percentage to total mortality.....	.15	.075	.225	.30	1.05	1.35	.15	.....	.225	.075	.225	.45	1.87	1.72	3.59	10.54	.37	.22	1.80	2.84	5.23	.97	.97	1.94	.97	.97	1.05	1.05	4.04	
Diseases.....	Inanition.						Bronchitis and congestion of lungs.						Diseases of the brain and its membranes.						Dentition and enteritis.						From all other causes.					
Color.....	White.			Colored.			White.			Colored.			White.			Colored.			White.			Colored.			White.			Colored.		
Sex.....	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.			
Number deaths.....	9	14	23	18	14	32	14	21	35	13	66	66	29	20	49	17	16	33	8	7	15	7	7	14	82	57	139	163	490	
Percentage to total mortality.....	.67	1.045	1.715	1.35	1.045	2.39	1.045	1.565	2.61	.97	4.93	4.93	2.17	1.48	3.65	1.27	1.21	2.48	.60	.52	1.12	.52	.39	1.94	6.13	4.26	10.39	12.19	36.62	

Table 6 shows the number of decedents according to color and sex and the average age at the time of death; first, of all of each class; second, those above the age of five; third, those above twenty; fourth, of those above forty; and, finally, the number of married and single persons, and widows and widowers above the age of twenty years, with their several average ages; thus showing the effect, to a certain extent, of married life upon longevity.

There are some interesting facts shown by these figures. For instance, the low average of age attained by the colored race as compared with the white; the colored male attaining but the average age of 15.432 years, while the white male attains that of 27.388. The difference of the average age of the white and colored female is not quite so great, being about $9\frac{1}{2}$ years. Comparing the white male and female, we find the advantage in favor of the female a little over two years, while the colored females have the advantage over the colored males of 3.6 years. After arriving at the age of five years, we find that this difference of average ages between the different races is, to some extent, obliterated. The white female still has the advantage of the white male, but by little less than one year. The colored male at this time has not only overcome his disadvantage as compared with the colored female, but has gained $6\frac{1}{4}$ years. For twenty years and above, there is little change from the ratio at five except between the colored male and female, the latter having gained nearly all she had lost at the last calculation. At the age of forty and over, however, we find the tables turned in favor of the colored race. The colored male has over $2\frac{1}{2}$ years more allotted him than the white, and the colored female has the advantage of $1\frac{1}{4}$ years as compared with the white female.

It is interesting to note the comparative number of each race and sex that attains the age of forty and upwards. Out of a total mortality of 831 white males, 301 arrive at this age, that is, a percentage of 36.22. And of the total mortality of 723 of colored males, only 155, or 21.44 per cent., arrive at this age. In other words, out of 1,000 births of white males, at the end of 40 years we shall find 362 alive; and out of 1,000 births of colored males at the same time we shall find but 214 and a fraction alive, a difference of 148 in favor of the white males.

Applying the same test to the females of the two races, we find that out of a total mortality of 741 white females there will be 261, or 35.22 per cent., alive at the end of forty years, or 352 in 1,000 births. Out of a total of 728 deaths of the colored females, but 144, or 19.78 per cent., are alive, or nearly 198 out of 1,000 births, being 154 in favor of the white female. So that, although their lives may prove of greater length after arriving at the age of forty, still the white child born at the same time with the colored has nearly two chances to the other's one to attain this age. Another thing to be taken into consideration is that very many of these old colored people are either uncertain as to their ages or are prone to exaggeration in respect thereto, and undoubtedly an element of error may have crept into these figures from this cause.

Another point of interest is contained in the figures relative to social relations. Among the whites, we find the number of widowers to be 57 and the number of widows 144, a difference of 87, showing pretty conclusively that "more widowers than widows marry." In married life we find that 247 married men die to 185 married women, a difference of 62, showing, *perhaps*, that married life is more salutary for the female than the male.

Of white males, single, 128 over the age of twenty years died against only 75 single females, a difference of 53, also showing, *perhaps*, that single

life is more salutary to the female than to the male. We find a single advantage of four-tenths of a year for the widowers over the widows in the average ages of the two sexes. The average age of the married male exceeds that of the married female over 9.8 years, showing very conclusively that married life is more salutary for the male than female.

The same remarks are also applicable to the colored race, except that the widows' longevity exceeds that of the widowers by one and nearly nine-tenths years, and that the married colored male exceeds in duration of life by over $8\frac{1}{2}$ years the married colored female.

The average age of the married as compared with the single shows a decided advantage in favor of the married. In the white race the married male exceeds the unmarried over 14 years; the advantage in favor of the white female being less than one year.

Among the colored we find the life of the married male exceeds that of the unmarried by over $17\frac{1}{2}$ years, and the life of the married female that of the unmarried by 12 years.

Lest an erroneous opinion may be drawn from table 6 and the comments thereon, it is well to state that these calculations are made only from the ages of those who have died during the nine months covered by these figures. There is a marked difference between the average age of the dying and the living, the latter being nearly double the former. The only way of arriving at the correct average age of any class of people would be to get the age of the whole number at any single day, and even this would not be the correct average dying age. If we could take one thousand persons born on the same day, and keep a complete register of all their ages at the time of their deaths, we could from this ascertain the average of their ages, but this would not be the average age of two thousand born on the same day, nor of one thousand and one. It will, therefore, be seen that these figures and remarks are only applicable to these decedents, and have no reference whatever to the living population.

TABLE No. 6.—*Showing total number of deaths, by color and sex, with average ages, together with the number of widows and widowers, married and single, above the age of twenty years, with their average ages and percentages to total mortality at different periods of life, for the nine months ending June 30, 1878.*

Color and sex.	All ages.			5 years and over.			20 years and over.		
	Number of deaths.	Average ages.	Percentage to total mortality.	Number of deaths.	Average ages.	Percentage to total mortality.	Number of deaths.	Average ages.	Percentage to total mortality.
White males . . .	831	27.388	27.5	528	42.538	17.43	439	49.137	14.52
White females . .	741	29.477	24.5	491	43.484	16.24	404	50.412	13.36
Colored males . . .	723	15.432	23.9	298	41.602	9.86	243	48.354	8.04
Colored females . .	728	19.033	24.1	351	35.346	11.61	261	47.550	8.63

TABLE No. 6.—Showing total number of deaths, &c.—Continued.

Color and sex.	40 years and over.			Widows and widowers.			Married.			Single.		
	Number of deaths.	Average ages.	Percentage to total mortality.	Number of deaths.	Average ages.	Percentage to total mortality.	Number of deaths.	Average ages.	Percentage to total mortality.	Number of deaths.	Average ages.	Percentage to total mortality.
White males.....	301	57.924	9.96	57	64.956	1.88	247	51.732	8.17	128	37.364	4.23
White females....	261	62.372	8.63	144	64.544	4.76	185	41.846	6.13	75	41.474	2.48
Colored males....	155	59.484	5.13	38	63.587	1.26	151	49.793	4.99	53	32.173	1.75
Colored females..	144	63.624	4.76	95	65.477	3.14	112	41.219	3.70	54	29.144	1.79

Table 7 shows the ten principal diseases and the number of deaths from each, for each year since August 1, 1874, giving total deaths, according to color and sex, with percentages.

Phthisis stands at the head and pneumonia is its immediate follower, through the four divisions of the table. The relations of these two diseases to each other, and the comparative ratios of the white and colored as to number of deaths and to each other, are surprisingly kept up throughout, and the proportion of deaths per one thousand of the population, by color, varies but slightly. Cholera infantum, diarrheal diseases, and convulsions change places, and finally cholera infantum, with tabes mesenterica, disappears entirely from the last division.

Scarlet fever first appears in the third year as No. 8; in the fourth year it appears as No. 6.

Diphtheria first appears in the fourth year as No. 5, showing something unusual in its history in this District for the last year.

Typhoid fever stands No. 9 in the first two years, disappears from the third, and again reappears in its former position in the fourth.

TABLE No. 7.—Showing the ten principal causes of death in the District of Columbia, registered for the years ending September 30, 1875, 1876, 1877, and for nine months ending June 30, 1878, together with classification of color and sex, with percentages.

YEAR ENDING SEPTEMBER 30, 1875.

Diseases.	White.		Colored.		Total deaths.	Percentage to total number of deaths.		Number of deaths in 1,000 population.	
	Male.	Female.	Male.	Female.		White.	Colored.	White.	Colored.
From all causes.....	1,162	1,048	1,029	1,113	4,352	50.781	49.219	19.217	47.600
1. Phthisis pulmonalis.....	164	143	124	148	579	7.054	6.250	2.669	6.044
2. Pneumonia.....	100	87	119	124	430	4.296	5.583	1.626	5.400
3. Cholera infantum.....	73	81	56	60	270	3.538	2.665	1.339	2.577
4. Convulsions.....	41	37	57	62	197	1.792	2.734	.678	2.644
5. Tabes mesenterica and marasmus.....	23	33	56	59	171	1.286	2.642	.486	2.555
6. Senile debility.....	39	33	34	51	157	1.654	1.953	.626	1.888
7. Diarrheal diseases, dysentery, entero colitis.....	22	30	32	46	130	1.194	1.786	.452	1.732
8. Whooping cough.....	18	27	36	43	124	1.034	1.815	.391	1.755
9. Typhoid fever.....	29	32	15	24	100	1.401	.896	.530	.866
10. Inanition.....	24	24	17	26	91	1.102	.988	.417	.953

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TABLE No. 7.—Showing the ten principal causes of death, &c.—Continued.

YEAR ENDING SEPTEMBER 30, 1876.

Diseases.	White.		Colored.		Total deaths.	Percentage to total number of deaths.		Number of deaths in 1,000 population.	
	Male.	Female.	Male.	Female.		White.	Colored.	White.	Colored.
From all causes.....	1,137	1,016	1,041	1,052	4,246	50.707	49.293	18.721	46.511
1. Phthisis pulmonalis.....	165	141	129	169	595	7.206	6.806	2.660	6.422
2. Pneumonia.....	100	72	135	115	422	4.050	5.887	1.495	5.555
3. Cholera infantum.....	93	83	69	63	308	4.145	3.108	1.530	2.933
4. Diarrheal diseases, dysentery, entero colitis.....	45	49	75	68	237	2.213	3.367	.817	3.177
5. Convulsions.....	36	37	71	49	193	1.719	2.826	.634	2.666
6. Senile debility.....	38	40	39	33	141	1.837	1.483	.678	1.466
7. Apoplexy.....	53	34	21	26	114	1.577	1.106	.582	1.044
8. Tabes mesenterica.....	6	8	26	42	92	.032	1.837	.121	1.733
9. Typhoid fever.....	24	32	14	14	84	1.313	.065	.486	.622
10. Bronchitis.....	21	25	17	10	82	1.083	.084	.400	.800

YEAR ENDING SEPTEMBER 30, 1877.

From all causes.....	1,087	1,015	961	1,040	4,103	51.231	48.769	18.278	44.466
1. Phthisis pulmonalis.....	166	147	115	181	609	7.628	7.214	2.721	6.577
2. Pneumonia.....	79	54	110	93	336	3.241	4.947	1.156	4.511
3. Convulsions.....	36	34	85	82	237	1.706	4.070	.608	3.711
4. Cholera infantum.....	48	49	41	57	195	2.364	2.388	.843	2.177
5. Diarrheal diseases, dysentery, entero colitis.....	43	37	62	52	194	1.949	2.729	.695	2.488
6. Tabes mesenterica and marasmus.....	24	29	62	69	184	1.291	3.192	.460	2.911
7. Senile debility.....	35	46	39	61	181	1.974	2.437	.704	2.222
8. Scarlet fever.....	64	63	14	12	133	3.095	.063	1.104	.577
9. Valvular disease of the heart.....	26	32	17	21	96	1.413	.092	.504	.844
10. Trismus nascentium.....	11	5	43	33	92	.036	1.852	.139	1.688

FOR NINE MONTHS ENDING JUNE 30, 1878.

From all causes.....	832	740	723	728	3,023	52.000	48.000	13.669	32.244
1. Phthisis pulmonalis.....	121	149	127	133	550	8.931	9.262	2.347	6.222
2. Pneumonia.....	63	49	111	96	319	3.704	6.847	.973	4.600
3. Convulsions.....	26	23	55	38	142	1.620	3.076	.426	2.066
4. Diarrheal diseases, dysentery, entero colitis.....	35	32	36	27	130	2.216	2.084	.582	1.400
5. Diphtheria.....	41	49	12	21	123	2.977	1.091	.782	.733
6. Scarlet fever.....	40	36	15	11	102	2.514	.086	.660	.577
7. Senile debility.....	19	30	19	26	94	1.620	1.488	.426	1.000
8. Trismus nascentium.....	5	3	24	38	70	.026	2.381	.069	1.377
9. Typhoid fever.....	23	15	12	11	63	1.323	.076	.347	.511
10. Premature birth.....	18	9	16	13	56	.089	.095	.234	.644

For the purpose of facilitating investigations into the causes of disease, as well as for general information to be obtained therefrom, the accompanying map has been prepared.

On this map the District is laid off into twelve divisions marked by red lines, and the locality, as near as can be given, of fatal cases of the following diseases is shown. In a few instances there has been more than one death in the same locality. Scarlet fever is indicated by the round red spot; diphtheria by the square red spot; diarrheal diseases, including diarrhea, dysentery, and *enterocolitis*, are represented by the red cross; typhoid fever is represented by the round blue spot; and malarial diseases, including remittent, intermittent, and typho-malarial fevers, are represented by the blue cross. None of the deaths from these diseases occurring in hospitals are indicated.

Table 8 should be studied in connection with this map, for, as will be observed, this table shows the total number of deaths, and the number

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TABLE No. 9.—*Showing number of deaths occurring in hospitals and similar institutions in the District of Columbia for the nine months ending June 30, 1878.*

Color and sex.	Names of hospitals and institutions.																	Total.
	Freedmen's Hospital.	Providence Hospital.	Washington Asylum Hos- pital.	Columbia Hospital.	Government Hospital for the Insane.	Barnes' Hospital (Soldiers' Home).	Children's Hospital.	St. Ann's Infant Asylum.	Louise Home.	Home for the Aged.	United States Naval Hos- pital.	Convent Visitation.	St. Vincent Orphan Asy- lum.	Aged Women's Home, Georgetown.	Colored Orphan Asylum.	Deaf and Dumb Asylum.	Women's Christian Asso- ciation Home.	
White male	7	28	9	...	24	25	1	12	...	4	3	...	...	...	...	1	...	114
White female .....	...	7	6	1	3	...	3	13	1	6	...	5	1	1	...	...	2	49
Colored male	36	3	21	...	6	...	3	8	...	...	...	...	...	...	2	...	...	79
Colored female	29	...	20	...	2	...	1	6	...	...	...	...	...	...	...	...	...	58
Total	72	38	56	1	35	25	8	39	1	10	3	5	1	1	2	1	2	300

Table 10 shows the duration of a few of our most important diseases, terminating fatally, with the percentages of deaths within specified periods from each disease.

Of scarlet fever we find that nearly one-fourth of all the deaths occur on or before the third day. The two next most fatal periods will be found to be the fourth and seventh days, while a large number live beyond fourteen days.

In diphtheria, the most fatal day is the seventh, nearly 15 per cent. dying on this day, the fifth and sixth ranging next in fatality.

In pneumonia the most fatal period is the seventh day, more than one in six of all the deaths occurring at this time. Nearly one-third of the deaths from this disease occur from the eleventh to the fourteenth day inclusive.

In typhoid fever a large number die on or before the tenth day. The fourteenth day proves fatal to over one-fifth, and the twenty-first to a little over one-fourth of the total number.

In phthisis over one-half die before passing the sixth month of the disease. The next most fatal period is between the ninth and twelfth months. Comparatively few, 7.61 per cent., live beyond the second year.

of each in the several divisions of the District, together with the percentages of deaths from each disease, and also the whole number of deaths and percentages to the deaths occurring in each of the divisions.

Attention is called to the fact of the percentages of the different diseases being so near alike, there being but few wide variations. Scarlet fever and diphtheria, however, present some peculiarities in this respect. Divisions 1, Georgetown, and 2, Washington and the county, are above the general average of deaths from scarlet fever, while divisions 5 and 8 of Washington and east of the Eastern Branch are below—east of the Eastern Branch not a case having occurred. Of diphtheria, we find it light in division 2 of Georgetown, 6 of Washington, and east of the Eastern Branch. It will also be noted that there is no relation between the prevalence of these two diseases, and this, so far as it goes, is an evidence that the infecting poisons of the two are different.

Of phthisis pulmonalis, pneumonia, and cholera infantum, we find a large proportion in divisions 2, 3, and 5 of Washington. Whether there may be some local cause or causes for this, or that it is merely accidental, is a question.

TABLE No. 8.—*Showing location of deaths in the District of Columbia for nine months ending June 30, 1878, not occurring in hospitals or similar institutions, with percentages.*

Diseases.	Georgetown.				Washington.							
	First division.		Second division.		First division.		Second division.		Third division.		Fourth division.	
	Deaths.	Percentages.	Deaths.	Percentages.	Deaths.	Percentages.	Deaths.	Percentages.	Deaths.	Percentages.	Deaths.	Percentages.
Phthisis pulmonalis	17	3. 63	11	2. 35	19	4. 06	64	13. 68	73	15. 6	57	12. 18
Pneumonia	8	2. 65	9	2. 99	21	6. 97	46	15. 28	52	17. 27	20	6. 45
Cholera infantum	4	5. 88	1	1. 47	6	8. 83	9	13. 21	12	17. 64	4	5. 88
Scarlet fever	14	13. 73	8	7. 84	6	5. 89	16	15. 68	9	8. 82	15	14. 71
Diphtheria	4	3. 31	2	1. 65	4	3. 31	10	8. 27	22	18. 18	24	19. 83
Typhoid fever	—	—	1	1. 75	3	5. 26	7	12. 28	9	15. 8	7	12. 28
Malarial fevers	—	—	—	—	4	10. 26	8	20. 51	4	10. 26	6	15. 38
Diarrheal diseases	12	1. 74	4	3. 48	6	5. 22	17	14. 78	16	13. 91	8	6. 96
All others	55	3. 79	66	4. 55	88	6. 06	201	13. 81	258	17. 77	192	13. 32
Total	104	3. 82	102	3. 75	157	5. 77	378	13. 88	455	16. 71	333	12. 23

Diseases.	Washington.								In the county.		East of Eastern Branch.		Total deaths.	Percentages.
	Fifth division.		Sixth division.		Seventh division.		Eighth division.							
	Deaths.	Percentages.	Deaths.	Percentages.	Deaths.	Percentages.	Deaths.	Percentages.	Deaths.	Percentages.	Deaths.	Percentages.		
Phtthisis pulmonalis	68	14.52	26	5.56	55	11.75	46	9.83	21	4.49	11	2.35	468	17.19
Pneumonia	43	14.28	17	5.65	29	9.64	25	8.31	20	6.65	11	3.66	301	11.06
Cholera infantum	16	23.52	1	7.35	5	7.35	3	4.41	3	4.41	-----	-----	68	2.50
Scarlet fever	2	1.96	1	6.83	18	14.87	3	2.94	15	14.71	-----	-----	102	3.75
Diphtheria	7	5.8	1	6.83	18	14.87	20	16.5	7	5.8	2	1.65	121	4.44
Typhoid fever	10	17.54	5	8.77	6	10.53	6	10.53	3	5.26	-----	-----	57	2.09
Malarial fevers	5	12.82	4	10.26	2	5.13	5	12.82	1	2.56	-----	-----	39	1.43
Diarrhœal diseases	16	13.91	12	10.43	13	11.3	7	6.09	9	7.83	5	4.35	115	4.22
All others	196	13.5	84	5.79	111	7.64	99	6.82	72	4.96	30	2.06	1,452	53.32
Total	363	13.33	161	5.91	246	9.03	214	7.86	151	5.54	50	2.17	2,723	100

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TABLE No. 11.—Showing the several occupations of the decedents for the nine months ending June 30, 1878.

Occupations.	White.		Colored.	
	Male.	Female.	Male.	Female.
Artists.....	1			
Apothecaries.....	12			
Agents, &c.....	5			
Attorneys, &c.....	11			
Auctioneers.....	1			
Architects.....	1			
Astronomers.....	1			
Authors.....		1		
Brickmakers.....			1	
Bricklayers.....	4		1	
Brewers.....	1			
Brass-finishers.....	1			
Butchers.....	5			
Bookbinders.....	2			
Barbers.....			3	
Billiard-saloon keepers.....		1	1	
Bakers.....	4	1	1	
Barkeepers.....	2			
Bartenders.....	1			
Blacksmiths.....	3			
Clerks.....	55	3	12	
Carpenters.....	14			
Caterers, &c.....	4			
Cooks.....			2	16
Car drivers.....	2			
Coachmen and hackmen.....			5	
Contractors.....	3			
Calkers.....	1		1	
Comptroller Treasury.....	1			
Cabinet-makers.....	3			
Coal-dealers.....	1			
Coopers.....			1	
Carriage-makers.....	1			
Conductors (street-car).....	1		1	
Dairymen.....	2			
Drummers, United States Marines.....	1			
Dressmakers and seamstresses.....		6		8
Drivers and teamsters.....	3		9	
Draughtsmen.....	1			
Dentists.....	2			
Editors.....	1			
Examiners, Patent-Office.....	3			
Engineers.....	5		2	
Farmers.....	7		6	
Fishermen.....	2			
Folders, Government Printing Office.....		1		
Furniture-dealers.....	1			
Firemen.....	2			
Gardeners.....	3		1	
Grocers.....	5	1		
Grainers.....	1			
Hucksters.....	1			
Housekeepers.....	3			
House servants and waiters.....		21		12
Hostlers.....		7	16	97
Hotel-keepers.....			2	
Hatters.....	4			
Hydrographers.....	1			
Jewelers.....			1	
Journalists.....	3			
Laborers.....	1			
Liverymen.....	45		146	
Millers.....	3			
Machinists.....	2			
Messengers.....	4			
Mechanics.....	3		4	
Merchants.....	1			
Midwives.....	22		2	
Masons.....				2
Market-masters.....	3			
Molders.....	1			
Musicians.....	1			
Manufacturers.....			1	
Nurses.....	1			
Newsdealers.....		1	1	7

TABLE No. 11.—Showing the several occupations of the decedents, &c.—Continued.

Occupations.	White.		Colored.	
	Male.	Female.	Male.	Female.
Newsboys	1			
Officers, United States Army	6			
Painters	10		1	
Physicians	6			
Pumpmakers	1			
Porters			2	
Plumbers	3		2	
Printers	10			
Plate-printers	2			
Professor law college	1			
Preachers and priests	4		3	
Plasterers	2		1	
Policemen	1			
Paper-hangers	1			
Peruvian minister	1			
President gas company	1			
Proof-readers	1			
Register United States Treasury	1			
Rag-picker			1	
Restaurant-keeper	2			
Soldiers	41			
Sailors	8		2	
Shoemakers	6		2	
Secretary Smithsonian Institution	1			
Superintendent street railway	1			
Superintendent Little Sisters of the Poor		1		
Superintendent American Express Company	1			
School teachers		1		1
Storekeepers		3		1
Stonecutters	7		1	
Skin dresser and glover	1			
Seagr-makers	1			
Sextons	4			
Tailors	1			
Timbers	1			
Treasurer Columbia Bank-Note Company	1			
Upholsters	5			
Washers and ironers		2		30
Whitewashers			2	
Water-registrar	1			
Watchmen	1		1	
Watemen	1			
Well-digger			1	

There are many interesting items to be found among the certificates of death that are in no way shown by any of the tables. For instance, we find with pneumonia, brain complications in 18 cases; followed by phthisis, 20; by abscess of the lungs, 1; preceded by whooping-cough, 22; by measles, 15; by phthisis, 8; diphtheria, 1; complicated with pleurisy, 26; with typhoid fever, 8; hypostatic pneumonia, 1; double pneumonia, 14. Phthisis is complicated with hemorrhage in 45 cases; preceded by serofula in 9 cases. Typhoid fever is complicated with perforation and hemorrhage of the bowels in 1 case, and 1 death from relapse is noted. Rheumatism complicated with heart trouble is found in 18 cases; valvular disease of the heart complicated with anasarca, 10; dropsy, 20; hydrothorax, 1.

Among children the complication most ordinarily met with is some brain trouble. In scarlet fever it is reported in 20 cases; in measles, 10; in diphtheria, 2; in cholera infantum, 17; in diarrhoea, 23; in whooping-cough, 19; in dentition, 56; in malarial fever, 4; and in indigestion and overfeeding in 6 cases.

With scarlet fever we find the following complications and sequelæ in addition to those already noted above: It is followed by diphtheria in

13 cases; urema, 5; anasæra, 10; albuminuria, 5; septicæmia and pyæmia, 4; congestion of the kidneys, 3; nephritis, 7; pneumonia, 3; dropsy, tabes, mesenterica, marasmus, and peritonitis, 1 each.

Diphtheria is reported with fewer complications and sequelæ than any other of the diseases of children, as the following will indicate: It was found with pneumonia, paralysis, thrombosis, and croup, 1 each; whooping-cough and hemorrhage, 2 each; and with pyæmia in 5 cases.

In measles we find complications and sequelæ with pneumonia in 15 cases; with congestion of the lungs and diarrhœa, 4 each; with anasæra, 3; with dropsy and enteritis, 2 each; and with heart-clot, typhoid fever, cholera infantum, and croup, 1 each.

Whooping-cough is complicated with pneumonia in 22 cases; with bronchitis and croup, 2 each.

Eight cases of cholera infantum and diarrhœa are given as having been produced by swill-milk.

Table 12 shows the number of marriages, births, still-births, twins and triplets, and illegitimate births reported during the nine months. The information it conveys is but meager, and very unsatisfactory, but the time allowed for the completion of this report would not permit further illustration.

TABLE No. 12.—*Showing marriages, births, still-births, illegitimate, twins, and triplets, reported for the nine months ending June 30, 1878.*

	White.		Colored.		Total.
Marriages.....	273		154		427
	Male.	Female.	Male.	Female.	
Births.....	885	800	589	612	2,886
	1,685		1,201		
Still-births.....	56	54	99	90	299
	110		189		
Illegitimate births.....	25	19	76	94	214
	44		170		
Twins.....	9		12		21
Triplets.....	..		1		1

During the nine months ending June 30, 1878, coffins, or burial sites, or both, have been supplied in 468 cases, showing that nearly one-sixth of the total number dying during the nine months were buried at public expense. More than three-fourths of this number were colored persons.

Very respectfully, your obedient servant,

SMITH TOWNSHEND, M. D.,

Health Officer, District of Columbia.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

APPENDIX L I.

DISTRICT OF COLUMBIA,
OFFICE OF HEALTH OFFICER,
Washington, D. C., October 31, 1878.

GENTLEMEN: In accordance with request contained in your letter of the 18th instant, I have the honor to forward herewith estimate of appropriations required to defray the expense of conducting the sanitary service, and to secure a full and correct record of vital statistics, &c., in the District of Columbia, for fiscal year ending June 30, 1880.

Owing to changes made necessary in consequence of a misapprehension as to date, &c., I am unable to forward detailed statements of operations, &c., at this time. It shall be in your hands, however, on or before the 10th proximo.

Very respectfully,

SMITH TOWNSHEND, M. D.,
Health Officer.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

Estimate of appropriations required to defray the expense of conducting the sanitary service, to secure a full and correct record of vital statistics, and to prevent domestic animals from running at large in the District of Columbia, for fiscal year ending June 30, 1880.

For salary of Health Officer.....	\$3,000
For six sanitary inspectors.....	7,200
For two food inspectors, at \$1,200 each.....	2,400
For clerks and other assistants.....	7,500
For one poundmaster.....	1,000
For laborers and poundmen.....	800
For rent of building.....	480
For printing, stationery, &c.....	600
For postage, fuel, and lights.....	300
	<hr/>
	23,280

M.—REPORT OF THE TREASURER.

TREASURER'S OFFICE, DISTRICT OF COLUMBIA,
October 24, 1878.

GENTLEMEN: In obedience to your communication of the 18th instant, I have the honor to make the following exhibit of the transactions of this department from November 1, 1877, the date of my last report, to June 30, 1878:

RECEIPTS.

From tax-collector, including water fund since December 17, 1877.....	\$1,488,337 04
water-registrar, to December 17, 1877.....	1,791 01
school fund, interest on \$60,385 corporation stock, 2 quarters.....	1,811 54
building permits (936).....	2,008 00
Washington Market Company, on account of rent.....	3,750 00
Western Market, rents.....	3,742 42
Northern Market, rents.....	4,217 00
Eastern Market, rents.....	1,974 87
Northeastern Market, rents.....	46 00
Georgetown Market, rents.....	1,128 88
assistant attorney, District of Columbia, A. A. Birney, fines collected.....	156 10
assistant attorney District of Columbia, F. Miller, fines collected.....	807 97
J. O. Wilson, from sale of school lot in 1871.....	663 73

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From sundry street excavations by individuals.....	\$50 00
commissioners of the sinking fund.....	656 69
Linthicum Institute for fuel in Curtis school building.....	65 34
Peabody library, for fuel in Curtis school building.....	74 79
license forfeited.....	6 25
refund of unexpended balances for transportation of paupers.....	43 72
sale of old materials.....	272 51
refund by Commissioners District of Columbia for photograph copy.....	7 00
produce-dealers' permits in lieu of licenses.....	1,650 00
sundry rents.....	332 10
police court for United States fines.....	4,241 16
police court for District of Columbia fines.....	5,540 24
bills receivable, Western Market notes, &c.....	2,179 66

1,525,554 02

From United States Government, appropriation fire department. \$25,000

From United States Government, appropriation for the poor... 20,000

45,000 00

Total receipts..... 1,570,554 02

From which amount deduct the sums received from property-holders for repairing Pennsylvania avenue, it being a trust fund for the benefit of the contractors on said avenue.....

3,677 49

Amount available for District purposes..... 1,566,876 53

There were 11,765 warrants countersigned between November 1, 1877, and June 30, 1878, and the daily receipts were duly deposited in the United States Treasury to the credit of the Commissioners of the District of Columbia.

Between the above dates, 1,900 licenses were issued from this office, amounting in value to \$88,163.53, viz:

Apothecaries.....	\$421 35
Auctioneers.....	2,315 69
Banks and bankers.....	322 25
Bill posters.....	20 00
Brewers.....	320 00
Balls, &c., and circuses.....	405 00
Book agents.....	133 36
Claim agents.....	30 00
Cattle brokers.....	120 00
Commission merchants.....	1,263 34
Commercial agents.....	14,446 84
Dealers in liquor, wholesale.....	10,155 51
Dealers in liquor, retail.....	39,575 03
Dealers in old barrels.....	60 00
Billiard and other tables.....	1,320 14
Hotels.....	2,195 26
Intelligences office.....	5 00
Ice companies.....	100 00
Insurance companies, &c.....	2,677 68
Junk dealers.....	1,216 69
Livery stables.....	2,234 53
Manufacturers of gas.....	72 00
Miscellaneous.....	8 73
Notions.....	280 00
Pawnbrokers.....	1,375 00
Photographers.....	481 68
Produce dealers.....	706 37
Peddlers.....	913 00
Restaurants.....	4,237 52
Street cars.....	3 50
Hacks, cabs, &c.....	173 06
Theaters.....	575 00

88,163 53

I respectfully suggest that the revenues of the District would be greatly increased if this office had the entire services of a man of integrity and industry as "inspector of licenses," whose business it should be to give his undivided attention toward the discovery of those persons who are now evading the license laws. He should be authorized and directed to demand from each and every person, amenable to the license laws, the production of his license, and bring to justice all who are selling without a license.

This inspector might be attached to the police department, but he should be required to make daily reports in person to this office.

Since my appointment in 1876, there have been added to the duties and responsibilities of the office the supervision of the license laws and issuance of licenses, the building-permit account, as well as the new duties connected with the liquor licenses, which, I hope, may justify the restoration of the salary to what the law allowed before these additions, viz. \$3,000 per annum.

The estimated expenses of this office for the year ending June 30, 1878, are as follows:

Salary of treasurer	\$2, 400
Salary of clerk	1, 200
Salary of assistant clerk and messenger	900
Contingencies	400
	<hr/>
	4, 900
Restoration of treasurer's salary	600
	<hr/>
Would be	5, 500

Respectfully,

ROB. P. DODGE,
Treasurer District of Columbia.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

N.—REPORT OF THE MAJOR OF POLICE.

DEPARTMENT OF METROPOLITAN POLICE,
OFFICE OF MAJOR AND SUPERINTENDENT,
Washington, D. C., November 21, 1878.

GENTLEMEN: I have the honor to forward herewith the seventeenth annual report of the operations of this department for the year ending September 30, 1878.

The efficiency and discipline of the force are good, and it is confidently believed will favorably compare with those of any similar organization in the country.

INCREASE OF THE FORCE.

The number of patrolmen, as at present prescribed, is too small to properly patrol the large area and great value contained in the District of Columbia. Since the authorization by Congress in 1866 of the present force, the area requiring police surveillance, the population, and the value of property have more than doubled; what was at that time sufficient is manifestly inadequate at the present. The beats as at present laid off—and with the limited number of men no better arrangement can be made—will average throughout the city, if the streets and alleys are passed over, ten miles in length. It is not at all surprising that with this extended line to traverse the policeman is sometimes sought in vain.

While the force is numerically 200 strong, that is by no means the number available for street duty. Large details are constantly required for public receptions of government officials, foreign representatives, &c. The courts when in session necessitate the daily attendance of an average of 30 men as complainants, witnesses, and in charge of prisoners; permanent details comprise one lieutenant, two sergeants, and twenty privates, disposed as follows: At police court, 1 lieutenant, 2 privates; as drill-sergeant, 1 acting sergeant; on night duty at headquarters, 1 private; at Baltimore and Ohio Railroad station, 1 private; as clerk in detective office, 1 private; to health office, as inspectors, 2 privates; as night inspector, 1 sergeant; at Executive Mansion, 1 sergeant, 3 privates; at corner Seventh street and Pennsylvania avenue, northwest, 1 private; at Smithsonian Park, 1 private; at city post-office, 1 private; Pennsylvania avenue and Fifteenth street, 1 private; Morrison building, 1 private; hack inspector, 1 private; Baltimore and Potomac Railroad station, 1 private; steamboat wharf, 1 private; Sanitary Co., 1 private.

When to these are added the absences from sickness and leaves of absence, the average residue for street duty will not exceed 125 men; of necessity the streets are often uncovered, and at times a single man is doing duty throughout a whole precinct. An increase of the force to 400 privates, with the corresponding officers, is respectfully but earnestly recommended.

MOUNTED SERVICE.

On the 1st of October the number of mounted men was increased to 34, and the experiment tried of assigning some to each precinct for day service throughout the precinct, that is, not confining them to prescribed beats; it was thought that by mounting a few men and keeping them constantly moving the number of day patrolmen might be decreased and the efficiency of the small force largely enhanced by correspondingly increasing the number for night duty. The scheme has been found to work advantageously; the mounted men are enabled to get from place to place with greater rapidity; they can effectively cover more ground than footmen; they are easily seen by those desiring their services as well as by those fearing their interference. The superintendent is in receipt of communications from citizens commending the measure. A further increase, by order of the Commissioners, to 50 is to be made on the 1st proximo; as soon thereafter as the men become familiar with the new duties required of them, the experiment will be made of increasing the number of night patrolmen by a corresponding decrease in the number at present doing day duty.

INFIRM AND DISABLED.

The force contains many men who, through age, long service, and exposure, are becoming worn-out; men who entered the force at its organization hale and hearty are to-day ineffective as patrolmen; that some provision be made for such, by which they can be properly cared for, is earnestly recommended; the vacancies thus created to be filled by younger and consequently more efficient men.

CITY HOSPITAL.

The necessity for a city hospital to which cases claiming the attention of this department can be assigned is from day to day becoming more apparent. The only establishments in the District to which such cases

can be assigned are the Freedmen's Hospital and the hospital in connection with the Washington Asylum; the one specially intended for the colored race and the other for paupers. The establishment of a city hospital, having in connection therewith a free dispensary, is respectfully recommended.

REFORMATORY FOR GIRLS.

This department is frequently called upon to trace out and bring from their hiding-places truant erring young girls. The girls found, there is no place in the District where they can be sent, where an effort at their reclamation can be made. The department, until recently, has availed itself of the courtesy of the House of the Good Shepherd, in Baltimore. Recently notice has been received from that institution that it could receive no more cases from this city. The establishment in the District of a reformatory for girls is respectfully recommended.

CAPACITY OF REFORM SCHOOL.

In this connection the attention of the Commissioners is called to the lack of accommodation in the reform school. At the present writing, that institution can receive no more cases, and incorrigibles have to be returned to their parents for the want of a place for their detention.

STATION HOUSES.

Many of the buildings, all in fact, rented by the District for station-houses are not adapted to the purpose; badly sewered and ventilated, too small and inconveniently arranged, they are illy adapted for the proper accommodation of the force or the work of the precincts; notably is this the case with the 1st, 2d, and 5th. The erection by the District government of buildings specially designed for the purpose is respectfully recommended.

UNIFORMS.

The character of duties that this department is largely called upon to perform in the matter of attendance on public receptions, &c., necessitates a more than usual degree of attention to the personal appearance of the men. It is believed that it is subjected to a greater expense in uniforms per year than any similar organization in the country. The average yearly cost is \$80 per man; this expense the men now bear themselves. It is respectfully recommended that, in view of the *extra* policeman duty they are called upon to perform, this expense be assumed by the government to the extent of \$80 per year per man. If this be deemed inadvisable, that the expense of repairing or renewing uniforms damaged or ruined in the line of duty be paid by the government.

MEDICAL AND SURGICAL SUPPLIES FOR STATION HOUSES.

Cases requiring medical attendance in station-houses are of frequent occurrence, arising from affrays or accident, among the class unable to bear the expense. There has been but little difficulty in obtaining the services gratuitously of some physician in the neighborhood, for, to its credit be it said, the profession of the District is ever ready to respond to the call of poverty and distress; but the station-houses are not furnished with any medical or surgical supplies, and these necessities the

physician has either to furnish at his own expense, or, as is frequently the case, the charity of the officers and privates in the station-house comes to the rescue and the expense is borne by contribution. A small yearly sum would procure all that is necessary of simple remedies, bandages, styptics. It is respectfully recommended that \$20 per year for each station-house be appropriated for this purpose.

AUTHORITY TO ISSUE WARRANTS OF ARREST.

Great embarrassment is experienced and frequently the ends of justice are defeated by the restriction upon the issue of warrants of arrest. Should a case arise requiring the issue of a warrant after the adjournment of the police court, delay is necessitated until the next meeting of that court, and opportunity given for the escape of the offender, or, if the justices of the peace (and their offices are usually closed upon the adjournment of court) are appealed to, it is at an expense of 50 cents per warrant, an expense that often cannot be incurred through the poverty of the complainant. To obviate this, it is respectfully suggested that the power to issue warrants be vested in the major and superintendent, the captain and lieutenants of police.

TRAMPS.

The District is overrun with vicious men, who do no work, lodge at station-houses, and prey upon the community in various ways. Many of them are of the most desperate character, who would not work if they had it to do, and who are reckless of life and property. The establishment of some place where these men can be lodged, and when released in the morning given a meal for which they would be compelled to render an equivalent in some public labor, or a modification of the vagrant law, by which they can be punished by a sojourn at the work-house, is respectfully recommended; the result, it is confidently believed, would be salutary—assaults, robberies, and crime generally less frequent.

LIGHTING THE ALLEYS.

Many of the alleys of the city are totally without light on dark nights. Many of them are the haunts of the worst classes, and the refuge of criminals. Escapes are numerous of fleeing culprits, who resort to these alleys, and in the impenetrable darkness escape pursuing officers. About three hundred lights are required to light these alleys. If the expense of employing gas for the purpose be considered too great, some inexpensive substitute might be adopted. As an experiment, it is recommended that the notoriously bad alleys be lighted with say 150 lights of gasoline, a substitute for gas that has been used for some months in Baltimore, in the streets and roads on the suburbs, with the best results in economy and power of light.

PUNISHMENT OF BOYS "CATCHING RIDES."

There is great necessity for some law by which the punishment can be accomplished of boys running after street cars and other moving vehicles, and, as it is termed, "catching behind." The practice is an annoyance to passengers and drivers, damaging to vehicles, and dangerous to the life or limb of the perpetrators.

An attempt has been made to punish these offenders under the law against trespass, but with very doubtful result.

SAINT ANN'S ASYLUM.

The department is largely indebted, and desires through you to express its acknowledgments, to Saint Ann's Infant Asylum. It has cheerfully responded to the calls made upon it by this department, and many a waif is therein tenderly cared for.

POLICE COURT.

In the increased facilities for doing business, greater comfort, and superior location of the new police court, the wisdom of the removal is amply attested.

ESTIMATES FOR FISCAL YEAR ENDING JUNE 30, 1880.

The estimate of the amount required for the expenses of the department for the fiscal year ending June 30, 1880, on the basis of the force as at present constituted, is as follows:

For pay-roll.....	\$278, 873
Rents.....	6, 200
Fuel.....	1, 543
Stationery.....	600
Gas.....	2, 100
Repairs to station-houses.....	1, 200
Telegraphing.....	100
Transportation of prisoners.....	888
Repairs to van.....	75
Ice.....	368
Washing.....	525
Meals for prisoners.....	1, 000
Photographs.....	50
Printing and binding.....	400
Rent of telephones.....	215
Ambulance driver.....	480
Repairs and other expenses ambulance.....	250
Supplies and contingencies.....	5, 133
	<hr/>
	300, 000

In conclusion attention is invited to accompanying tables, giving in detail the operations of the department, and the report of Sanitary Officer Connell, which is forwarded as a part of this report.

THOS. P. MORGAN,

Major and Superintendent Metropolitan Police.

Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

APPENDIX N 1.

Operations of the police department.

No. 1.—Table showing the disposition of the force.

Precincts.	Major and super- intendent.	Captain and in- specter.	Lieutenants.	Sergeants.	Acting sergeants.	Privates.	Detailed.	Vacancies.	Total.
1			1	2	1	24	3		31
2			1	2		18			21
3			1	2	1	15	2		21
4			1	2	1	20	1		25
5			1	4	1	28	3		37
6			1	2	1	19	2		25
7			1	3		23	1		28
8			1	3	1	26	2		33
Police court	1	1							2
Detectives			1						1
Sanitary			1			(6)			7
						1			1
Total	1	1	10	20	6	174	14	6	232

No. 2.—Table showing time lost by sickness and other causes.

Precincts.	Sick.	With leave.	Without leave.	Days.
1				
2	242	99	5	346
3	187	134		321
4	175	66	1	242
5	290	115	5	410
6	295	259	1	555
7	209	117	11	337
8	220	117	1	338
Detectives	466	205	1	672
	21	6		27
Total	2,105	1,118	25	3,248

No. 3.—Table showing number of arrests in each precinct.

Precincts.	Males.	Females.	Total.
1			
2			
3	1,348	428	1,776
4	962	214	1,176
5	760	108	868
6	904	177	1,081
7	3,154	543	3,697
8	824	97	921
Sanitary	1,163	145	1,308
Detectives	891	156	1,047
	6		6
Total	414	39	453
	10,426	1,907	12,333

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No. 4.—Table showing the ages of the males arrested, classified.

Precincts.	From 10 to 20.	From 20 to 30.	From 30 to 40.	40 and over.	Total.
1.....	311	467	303	267	1,348
2.....	273	325	160	204	962
3.....	131	274	179	176	760
4.....	236	267	164	237	904
5.....	558	1,037	808	751	3,154
6.....	194	232	187	211	824
7.....	290	370	239	264	1,163
8.....	250	266	173	202	891
Sanitary.....	1	2	2	3	6
Detectives.....	128	169	66	51	414
Total.....	2,371	3,408	2,281	2,366	10,426

No. 5.—Table showing the ages of the females arrested classified.

Precincts.	From 10 to 20.	From 20 to 30.	From 30 to 40.	40 and over.	Total.
First.....	84	205	81	58	428
Second.....	70	62	50	32	214
Third.....	25	36	21	26	108
Fourth.....	22	56	32	64	174
Fifth.....	94	253	100	96	543
Sixth.....	15	40	19	23	94
Seventh.....	25	44	44	32	145
Eighth.....	37	55	34	30	156
Detectives.....	17	11	5	6	39
Total.....	389	762	386	370	1,907

No. 6.—Recapitulation of offenses classified.

Offenses against the person.	Males.	Females.	Total.
Assault.....	97	26	123
Assault and battery.....	1,192	336	1,528
Assault and battery with intent to kill.....	81	2	83
Assault with intent to kill.....	1	1	2
Affray.....	186	24	210
Assaulting policeman.....	29	2	31
Attempt at rape.....	9	1	10
Bigamy.....	2	1	3
Bastardy.....	1	1	2
Carrying concealed weapons.....	59	3	62
Contempt of court.....	53	26	79
Disorderly conduct.....	713	209	922
Deserters.....	17	1	18
Enticing prostitution.....	1	6	7
Exhibiting obscene pictures.....	1	1	2
Fugitive from justice.....	99	12	111
Fugitive from parents.....	1	1	2
Fast driving.....	11	1	12
Fighting in streets.....	4	1	5
Highway robbery.....	4	1	5
Intoxication.....	2,897	275	3,172
Intoxication and disorderly.....	560	189	749
Interfering with policeman.....	4	1	5
Inciting to riot.....	1	1	2
Indecent exposure.....	26	1	27
Incorrigible.....	8	1	9
Insulting females in street.....	1	1	2
Infanticide.....	1	1	2
Intimidating witnesses.....	1	1	2
Indecent assault.....	1	1	2
Keeping bawdy-house.....	2	17	19
Keeping policy-shop.....	2	1	3
Keeping gambling-house.....	30	1	31

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No. 6.—Recapitulation of offenses classified—Continued.

Offenses against the person.	Males.	Females.	Total.
Keeping disorderly house	4	.....	4
Loud and boisterous	6	.....	6
Manslaughter	1	.....	1
Murder	8	2	10
Malicious mischief	1	.....	1
Mutiny	4	.....	4
Prostitution .....	.....	2	2
Rebuly	2	1	3
Profanity	239	104	343
Rioting	3	.....	3
Refusing to assist policeman	3	.....	3
Resisting policeman	18	.....	18
Riotous conduct	1	.....	1
Rape	6	.....	6
Threats	227	119	346
Vagrancy	389	173	562
Witnesses	157	26	183
Miscellaneous	73	6	79
Total	7, 235	1, 562	8, 797

No. 7.—Recapitulation of offenses classified.

Offenses against property.	Males.	Females.	Total.
Arson	3	.....	3
Accessory to arson .....	.....	1	1
Attempt to steal	2	.....	2
Burglary	45	.....	45
Cruelty to animals	18	1	19
Embezzlement	5	.....	5
Forgery	21	2	23
Fraud	4	.....	4
Gambling	19	.....	19
Larceny, grand	135	17	152
Larceny, petit	847	141	988
Malicious mischief	47	55	102
Malicious trespass	16	1	17
Obtaining money or goods under false pretenses	30	2	32
Passing counterfeit money	3	.....	3
Picking pockets	10	.....	10
Receiving stolen goods	23	6	29
Robbery	24	2	26
Suspicion	562	39	601
Selling lottery and policy tickets	19	.....	19
Violating District ordinances	96	.....	100
Miscellaneous	1, 266	115	1, 381
Total	3, 196	340	3, 536

No. 8.—Nativity of those arrested classified.

Nativity.	Number.	Nativity.	Number.
United States, white	5, 315	Prussia	3
United States, colored	5, 024	Switzerland	3
Ireland	1, 332	Austria	3
Germany	374	Wales	2
England	144	Mexico	2
Scotland	30	Holland	1
France	21	Spain	1
Poland	21	Denmark	1
Italy	19	Central America	1
Russia	7	Belgium	1
Canada	7	.....	1
Persia	4	Total	12, 333
Sweden	4		

No. 9.—Table showing trades and callings of persons arrested.

Occupation.	No.	Occupation.	No.
Actor.....	1	Honsekeepers.....	529
Artists.....	8	Hatters.....	5
Agents.....	112	Hotel-keepers.....	18
Architects.....	2	Hotcksters.....	193
Apprentices.....	29	Hemp-makers.....	3
Auctioneers.....	7	Janitors.....	5
Awning-maker.....	1	Junk-dealers.....	22
Bailiff.....	1	Jewelers.....	17
Barkeepers.....	88	Journalists.....	10
Barbers.....	75	Labourers.....	3,467
Blacksmiths.....	109	Lawyers.....	60
Bootblacks.....	139	Livewaymen.....	13
Bricklayers.....	175	Locksmiths.....	3
Brick-makers.....	24	Lamp-lighters.....	7
Brokers.....	10	Laundresses.....	4
Butchers.....	72	Liquor-dealer.....	1
Bakers.....	61	Machinists.....	94
Bookbinders.....	16	Merchants.....	143
Boatmen.....	53	Molders.....	17
Brewers.....	12	Musicians.....	13
Basket-maker.....	1	Millwright.....	1
Broom-makers.....	8	Messengers.....	21
Bacon-cutters.....	2	Marines.....	47
Brush-makers.....	2	Milkman.....	1
Brass-finishers.....	2	Magistrates.....	2
Boiler-makers.....	5	Marketmasters.....	3
Builder.....	1	Mechanics.....	2
Butter-dealer.....	1	Masons.....	12
Beggars.....	2	Millers.....	5
Bill-posters.....	3	Miner.....	1
Brakeman.....	1	Newsboys.....	79
Bankers.....	7	None.....	531
Bell-hanger.....	1	Nail-maker.....	1
Carpenters.....	272	Oystermen.....	6
Cabinet-makers.....	22	Painters.....	267
Clerks.....	466	Plumbers.....	86
Cartmen.....	9	Plasterers.....	129
Cooks.....	46	Policy dealer.....	1
Coachmen.....	9	Printers.....	188
Conductors.....	7	Prostitutes.....	573
Car-drivers.....	5	Policemen.....	4
Constables.....	18	Peddlers.....	60
Contractors.....	10	Physicians.....	32
Clock-makers.....	37	Paper-makers.....	2
Confectioners.....	2	Paper-hangers.....	8
Coach-makers.....	7	Polishers.....	1
Chair-makers.....	9	Photographers.....	11
Collector.....	3	Pavers.....	11
Cigar-makers.....	1	Plateprinter.....	1
Cheese-maker.....	34	Porters.....	17
Capitol police.....	1	Pressmen.....	3
Dairymen.....	2	Pawnbrokers.....	2
Drivers.....	30	Produce dealers.....	29
Druggists.....	108	Preachers.....	2
Drovers.....	17	Riggers.....	2
Dentists.....	10	Reporters.....	20
Dress-makers.....	4	Restaurant-keepers.....	83
Dancing-master.....	6	Roofer.....	1
Dyer.....	1	Rag-pickers.....	6
Draughtsmen.....	3	Sailors.....	207
Engineers.....	28	Sailmakers.....	6
Expressmen.....	3	School-girls.....	6
Engravers.....	7	School-boys.....	152
Editors.....	2	School-teachers.....	2
Furrier.....	1	Servants.....	749
Farmers.....	116	Shoemakers.....	143
Frame-maker.....	1	Soldiers.....	138
Fishmen.....	22	Storekeepers.....	43
Fresco-painter.....	1	Stone-cutters.....	111
Firemen.....	9	Students.....	326
Folder.....	1	Silversmiths.....	3
Grocers.....	71	Showmen.....	4
Gardeners.....	50	Seamstresses.....	11
Grainer.....	1	Ship-carpenters.....	7
Gaunblers.....	21	Stone-masons.....	1
Gasfitters.....	2	Saddlers.....	19
Gunsmiths.....	2	Schoolmasters.....	4
Glass-blower.....	1	Slaters.....	5
Hackmen.....	86	Sculptor.....	1
Harness-makers.....	10	Stewards.....	38
Hostlers.....	30	Stencil-cutters.....	6
		Shirt-cutter.....	1

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No. 9.—Table showing trades and callings of persons arrested—Continued.

Occupation.	No.	Occupation.	No.
Sheet-iron worker.....	1	Umbrella-makers.....	2
Silk-spinner.....	1	Upholsterers.....	31
Spinsters.....	3	Undertakers.....	3
Stereotyper.....	1	Vagrants.....	71
Tailors.....	68	Wheelwrights.....	12
Tinkers.....	3	Watchmen.....	36
Teamsters.....	24	Washwomen.....	14
Telegraph-operators.....	6	Whitewashers.....	2
Thieves.....	379	Waiters.....	69
Tanner.....	1	Weavers.....	2
Tinners.....	78		
Traders.....	1	Total.....	12,333

RECAPITULATION.

Total arrests.....	12,333
Males.....	10,426
Females.....	1,907
Married.....	4,293
Single.....	8,040
Could read and write.....	8,248
Could not read nor write.....	4,085

Offenses against the person were committed by 7,234 males and 1,564 females.

Offenses against property were committed by 3,195 males and 339 females.

TRANSACTIONS OF THE PROPERTY CLERK.

Property has been deposited with the property clerk during the year ending September 30, 1878, to the estimated value of \$24,568.69.

Property has been delivered to claimants in accordance with judicial action and proofs of ownership to the value, estimated, of \$20,340.45.

Sales have been made of unclaimed property amounting to \$198 09
Of perishable property and animals..... 54 98

Aggregating..... 253 07
Upon which there were expended..... 85 85

Netting..... 167 22

This sum (\$167.22), together with \$73.53 unclaimed moneys, were transferred to the treasurer late board of police June 29, 1878, to the credit of the policemen's fund.

Value of property reported as stolen..... \$96,539 10
Value of property recovered and restored to owners..... 65,138 02
Value of property taken from "lodgers," "drunks," and returned to same..... 38,538 02

DISPOSITION OF CASES.

Fines have been imposed in cases..... 3,590
Amounting to..... \$26,669 81
In United States cases..... \$2,098 56
In District of Columbia cases..... \$11,791 25
In United States cases appealed..... \$1,285 00
In District of Columbia cases appealed..... \$5,494 00
Dismissed..... 4,998
Surrendered to military authority..... 4
Surrendered to Maryland authority..... 4
Surrendered to Virginia authority..... 2
Sent to jail..... 947

Sent to workhouse	1,316
Security to keep the peace	230
Bail for court or grand jury	114
Not disposed of	90
Sent to Reform School	57
Miscellaneous	1,269

INCIDENTALS.

Destitute persons furnished lodgings	13,151
Lost children restored to parents	238
Assistance rendered	894
Animals and vehicles found and restored to owners	285
Doors and windows found open and secured	441
Fires attended	169
Inquests held	48
Abandoned infants found	79

APPENDIX N 2.

REPORT OF THE SANITARY OFFICER.

DEPARTMENT METROPOLITAN POLICE,
 SANITARY OFFICE,
Washington, D. C., November 20, 1878.

SIR: I have the honor to submit herewith a synopsis of the operations of the sanitary detail for the year ending September 30, 1878.

The chief duties imposed upon this office are to care and provide for the sick poor and the insane found within the District, and, after obtaining proper permits, convey them to the several hospitals and asylums.

A large per cent. of those found here come from the several States, expecting, from the fact that this is the seat of government, to ameliorate their condition, many of them being impressed with the idea that the government is bound to care for them.

There is not a week but two or three of this latter class are brought to this office by officers from the Executive Mansion and from the several stations, and who, upon examination by the proper medical officers, are found to be insane; some of them imagining themselves elected President of the United States, some great generals coming here to take command of the Army, others holding claims for large amounts, "millions of dollars," against the government; some again on patents, and some on religion, each one having a delusion peculiar to him or her self.

These especially are a source of great annoyance and trouble as well as expense to the District, as under the law the District has to defray the entire cost of their support in the Government Hospital for the Insane until their legal place of residence is ascertained, a matter which is very difficult and sometimes impossible, owing to the fact that many of them are not possessed of mind enough to give any account of their friends or place of residence. The latter of course have to be kept in the institution until they get better or die. Those who are able to state their place of residence are removed, "upon verification of their statement," under escort, to such residence, and delivered over to their friends, "if there are any," or to the authorities of the place. It is a notable fact that the relatives or friends of such insane persons have always failed, except in one or two instances (pleading poverty, and consequently inability), to defray expenses of transportation; consequently such expenses

have always been borne by the District, it being considered, "and of course is," much cheaper than supporting them in the hospitals. It is scarcely just, however, to compel the District to defray either the expense of supporting them in hospital or transporting them to their homes, as they cannot be considered in any sense as wards of the District, but rather of the several States. In view of this fact, I respectfully suggest the propriety of calling the attention of Congress to the matter, and ask that body for a special appropriation to meet such a contingency.

This office is also charged with furnishing (after investigation into the merits of the applicant, and the final approval of the Commissioners of the District) transportation to non-resident paupers toward their homes. This class of paupers have increased very much during the past year, and are attracted to this city more than to any city in the United States on account of it being the seat of government, many of them if not all having business with the general government, many of them if not all being a wounded soldier, a soldier's widow, or a deceased soldier's mother or sister, who, heretofore, were able to make a comfortable living, but who are now unable to provide themselves with the necessities of life, owing to the general stagnation of business and their utter inability to obtain employment of any kind. They are therefore tempted through their necessity to come to Washington in hopes of obtaining employment of some kind from the government, or securing a pension, which many of them think is justly due them. They never succeed in obtaining the former, and very rarely the latter; consequently they find themselves here among strangers and without means by which they could return to their homes. They therefore apply, "like all persons when in distress," to the police authorities for assistance. They state, and justly with reason, that if they could only get back home to their friends they would have at least a place to sleep and a probability of something to eat. It is to be regretted that these people should be deluded to coming here, as they never better their condition by doing so; but the fact is that they do come, and are found in utter destitution. They are not tramps, and cannot be classed or treated as such. As a matter of humanity they have to be cared for, and the question is which is the best way to dispose of them. Most undoubtedly it is cheaper to furnish them with transportation toward their homes than to support them here in the hospital or poorhouse, and either one or the other has to be done. The former has been the practice of this office as far as the limited means permitted.

In the estimates submitted to Congress by the Commissioners of the District for the support of the District government for the fiscal year ending June 30, 1879, and approved by that body, only \$2,000 was allowed for the transportation of prisoners to workhouse and for paupers. The former costs about \$1,200, leaving only a balance of about \$800 for the transportation of paupers, which is entirely inadequate, and which I think is now nearly exhausted; but as these people must be cared for in some way—and I may here remark that they are frequently annoying "by their personal appeals" not only to the individual citizens but to members of Congress during the session of that body—I therefore suggest that the Commissioners of the District ask of Congress an amount sufficient for the transportation of these poor people toward their homes.

The following statement will show the number of non-resident paupers furnished with transportation toward their homes, the number of sick and destitute persons sent to the several hospitals and asylums, and the nativity of the same.

The number of non-resident paupers furnished with transportation to other cities, procured from the Commissioners of the District of Columbia, was 299.

The number of sick and destitute persons sent to the several hospitals and asylums for the year ending September 30, 1878, was—

To Washington Asylum.....	361
Providence Hospital.....	140
Freedmen's Hospital.....	107
Government Hospital for the Insane.....	84
Columbia Hospital.....	4
Colored Orphan Asylum.....	2
Saint Ann's Infant Asylum.....	1
Total.....	699

The nativity of persons sent to hospitals and asylums for the year ending September 30, 1878, is as follows, viz:

United States.....	555
Ireland.....	86
Germany.....	39
England.....	7
Denmark.....	2
Switzerland.....	2
Canada.....	2
West Indies.....	2
Holland.....	2
France.....	1
Scotland.....	1
Total.....	699

Respectfully submitted.

JOHN CONNELL,
Sanitary Officer, Metropolitan Police.

THOMAS P. MORGAN,

Major and Superintendent Metropolitan Police.

O.—REPORT OF THE JUDGE OF THE POLICE COURT.

POLICE COURT, D. C.,
November 2, 1878.

GENTLEMEN: Referring to communication from your office of the 19th ultimo (No. 8844), I have the honor to submit the following estimate of the amount required for the support of this court for the year ending June 30, 1880:

Salaries.....	\$9,858
Incidental expenses.....	5,000
	14,858

The removal of the court from the building formerly occupied, long felt by every one to be a nuisance, to the present comfortable and healthful quarters, is a source of gratification to all, officers, attorneys, and citizens, and it is confidently hoped that experience will prove the apprehensions of those who objected to its new location to have been groundless. I am glad to avail myself of this opportunity, in behalf of myself, the officers of the court, and all who do business there, to convey to you our appreciation of the efforts you have made in securing for us a suitable building for the transaction of our duties, our thanks for the interest you have taken in our affairs, and our congratulations on the success which has crowned your endeavors.

Very respectfully, your obedient servant,

WM. B. SNELL,
Judge Police Court, District of Columbia.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

P.—REPORT OF BOARD OF TRUSTEES OF PUBLIC SCHOOLS.

OFFICE OF THE BOARD OF TRUSTEES OF PUBLIC SCHOOLS.

Franklin Building, Washington, November 12, 1878.

GENTLEMEN: The board of trustees, in response to your communication of the 18th ultimo, requesting "estimates of the necessary expenses of conducting the public schools for the current fiscal year and for the year ending 30th June, 1880, with such information and suggestions as to their present condition and wants as you may deem important, with a view to securing greater efficiency, economy, and usefulness of the system, has the honor to submit the following report and recommendations, with an estimate of the amount that will be required for the support of the public schools in the District of Columbia for the fiscal year ending June 30, 1880.

The number of youth of school age (6 to 17, inclusive) in the District of Columbia, according to the census of 1878, was: white, 26,426; colored, 12,374; total, 38,800.

The whole number of pupils enrolled in the public schools for the school year ending June 30, 1878, was: white, 15,118; colored, 7,724; total, 22,842; increase over the enrollment of last year, 1,578.

The average number of pupils enrolled in the public schools for the school year ending June 30, 1878, was: white, 12,376; colored, 6,583; total, 18,959; the increase over last year was 1,847.

The number of teachers employed for the school year ending June 30, 1878, was: in the white schools, 243; in the colored schools, 127; total, 370.

The total expenditures for the support of the public schools for the school year ending June 30, 1878, were \$371,856.04.

The number of school rooms owned is: for white schools, 142; for colored schools, 95; total, 237.

The number of school-rooms now rented is: for white schools, 92; for colored schools, 25; total, 117.

Estimate of expenses for the support of the public schools for the fiscal year ending June 30, 1880.

Salaries of teachers and superintendents	\$292,000
Wages of janitors and sweeps	22,000
Rent	30,000
Fuel	12,000
Repairs	20,000
General supplies	10,000
Insurance	2,500
Printing	4,500
Miscellaneous	5,000
Secretary and clerks	2,000
Permanent improvements	100,000
Total	500,000

SCHOOL-HOUSES.

In the last report made by the board to the Commissioner the following statements were made:

The supreme need of the public schools of the District at the present time is school-houses. Eighteen of these schools, containing an average of 60 pupils each, have no separate school-rooms; 76 are in rented rooms, mostly unsuitable and unhealthful; 10 are in old barracks, an inheritance of the war, and cannot much longer be kept from tumbling down—making a total of 104 school-rooms now needed. The cost of pur-

chasing sites, and building thereon plain, substantial school-houses, containing in the aggregate 104 school-rooms, is estimated at about \$400,000, and the interest on this sum of money, at six per cent. per annum, is \$24,000. The rental of property for school purposes, for the year ending June 30, 1877, cost the District \$24,006.94, a greater sum than the interest on \$400,000, and the number of school-rooms obtained for this \$24,006.94 was only 83, including the 10 barrack rooms owned by the District, but located on leased ground for which the District pays an annual rent. It is therefore recommended that the sum of \$400,000 be provided for the purpose of purchasing sites and building school-houses, and that the tenancy system be given up.

Since the date of that report, November 13, 1878, no school buildings have been erected by the District, and 31 additional school-rooms have been rented. It will be necessary to expend \$30,000 for rent for the next school year, and this item must increase rapidly each year until the District Government begins building its own school-houses. In making up the estimate for the next school year, an item of \$100,000 for permanent improvements has been included, which, judiciously expended in plain, substantial buildings, would provide for the regular increase in attendance of pupils, and begin the reduction of the expense for rent.

In this connection it is recommended—

First. That Congress be asked to donate to the District of Columbia, for school purposes, lots 18 and 19, square 158, on Massachusetts avenue between Seventeenth and Eighteenth streets, N. W., in the city of Washington, and now owned by the United States Government. These lots have a front of 107 feet by a depth of 177 feet, and would make an excellent site for a school building for the children residing in the north-western section of the city.

Second. That Congress be asked to authorize the Commissioners of the District of Columbia to appropriate to school purposes the ground in square 446, purchased by the District of Columbia from Mr. W. W. Corcoran, as a site for a market, under an act of the legislative assembly approved June 19, 1872.

The District owns no school building for white schools in this section of the city, but is now renting 25 school-rooms to accommodate the same. A part of the ground named might be used as a site for a school building, and the remainder could be sold for a sum sufficient to pay the cost of a building.

EXPENSES OF THE SCHOOLS.

The cost per pupil based on the average enrollment for the school year ending June 30, 1878, was \$18.16, an amount somewhat below the average cost in other cities of the country. On the 13th of November, 1877, the board of trustees submitted to the Commissioners as an estimate of the expenses of the public schools for the school year ending June 30, 1879, a total of \$405,667.36; but we have been informed that the Commissioners in submitting their estimates to Congress reduced that amount to \$365,000. This reduction was made without consultation with the board of trustees of public schools, and it will be impossible to continue the schools through the year on the amount named by the Commissioners. The estimate as reduced by the Commissioners seems to have been based upon the actual expenses for the school year ending June 30, 1878, and no provision was made for the increase in the attendance of pupils for the succeeding year. Judging from the attendance thus far during the present year, it is estimated that this increase will amount to fully 2,000 pupils, and at the average cost per pupil, as stated above, the increase in expenses will necessarily be from \$35,000 to \$40,000. This makes the amount required to continue the schools through the year not less than \$400,000. If the schools are to be continued through the year some

provision must be made for the amount required in addition to the estimate made by the Commissioners in their communication to Congress, referred to above. The rapid increase of attendance in the public schools necessarily causes a corresponding increase in expenses. In 1872, the whole number of pupils enrolled was 15,555, and in 1878 it was 22,842, showing an average increase of about 8 per cent. annually.

Respectfully submitted.

W. W. CURTIS,
President Board of Trustees.

Attest:

JOHN H. BROOKS.

Secretary.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

Q.—REPORT OF THE COMMISSIONER OF THE WASHINGTON ASYLUM.

OFFICE OF THE COMMISSIONER
OF THE WASHINGTON ASYLUM,
Washington, D. C., November 1, 1878.

GENTLEMEN: I submit herewith the reports of the intendant, matron, and visiting physician of the Washington Asylum, giving in detail the operation of their respective departments to the end of the fiscal year.

The intendant in his report gives carefully prepared statistical tables, with deductions drawn therefrom, and with suggestions for the improvement of the service, to all of which I invite your careful attention.

I indorse the recommendation of the visiting physician for the enlargement of the dispensary building to provide office and sleeping rooms for the resident physician and student. A small lying-in ward might be erected at trifling cost. A large ward for the accommodation of chronic cases, which require constant attention rather than special treatment, is, in my opinion, essential.

In the Georgetown poorhouse there are but twelve paupers. The premises are in charge of the managers of the Industrial Home School as tenants at will. The main building is dilapidated. The out-buildings are beyond repair.

One of the chief difficulties experienced in the management of the asylum has been the lack of proper facilities for regular and profitable employment of the inmates. A large majority of the persons sentenced to the workhouse are unskilled laborers. Their terms of imprisonment range from seven to ninety days. To attempt to teach a trade in three months would be folly. To employ the men on the streets throughout the city is not only unprofitable, but also offensive to public taste. During the past season many of the men have been employed in grading and beautifying the grounds of the institution. This work, though enhancing the value of the property, has not, of course, lessened the expenses of the workhouse, and the work itself will soon be completed as far as practicable. I know of no way in which the short-term prisoners might become so nearly self-supporting as in the cultivation of land.

The number of able-bodied men in the workhouse is eighty. The report of the intendant shows that there are but five acres of available arable land connected with the institution, a quantity so small as to furnish employment to but an insignificant proportion of the men. There

is no land on the west side of the Eastern Branch which could be profitably purchased for agricultural purposes. But the land on the east side of the branch, and directly opposite the grounds of the asylum, might be made available. From the books of the board of assessors I learn that the land referred to is assessed at from \$80 to \$125 per acre, though it is probably held at a somewhat higher price. Could three hundred acres of this land be obtained, I believe that the workhouse side of the asylum could be made mainly self-supporting. The men and horses necessary to the cultivation of this tract of land could, without difficulty or expense, be transported across the branch in flatboats. The men could be more regularly employed throughout the day, and the danger of escape would be much less in open country than in that thickly settled. Should this land be purchased, a clause could doubtless be inserted in the street-sweeping and garbage contracts requiring that material gathered should be transported in boats and landed at wharves on the river-front of the property. Arrangements might also be made for digging pits in which to deposit the night-soil and offal for conversion into fertilizers, thus doing away with a constant source of complaint and annoyance, and settling the vexed question of the disposition of this material without offending the senses or endangering the health of the people of the community. At the same time, the farm could not fail to become so fertile as to yield very large and profitable crops.

I earnestly recommend that Congress be asked to appropriate \$50,000, or so much thereof as may be necessary, to make this purchase. The report of the intendant shows that but 25 per cent. of the inmates of the asylum are natives of the District, while over 50 per cent. are natives of the States, who have been drawn to Washington chiefly because of its being the capital and political center of the country. I believe that if the facts are properly represented, Congress will make the necessary appropriation as an act of justice. But there is a more selfish reason on which members of Congress might base their justification of such action. Under the act of June 11, 1878, the United States Government pays from its Treasury 50 per cent. of all the expenses of the District. With this land the workhouse cannot fail to become nearly or quite self-supporting.

In cutting off the large annual expenditure now necessary for the support of the workhouse, one-half of the amount is saved to the national Treasury. From a business point of view, money could hardly be more profitably invested.

The following table contains the names of thirty prisoners, with the number of days of imprisonment served by each during the past year:

Name.	Nativity.	Number of days.	Name.	Nativity.	Number of days.
Michael Lanhady.....	Ireland.....	247	Jeremiah Quirk.....	Ireland.....	210
Robert Sherlock.....	New York.....	216	Lewis Nelson.....	Sweden.....	150
Henry Henson.....	Dist. of Col.....	250	Lewis Simms.....	Dist. of Col.....	157
George Boucher.....	Maryland.....	165	Mary Nuttrel.....	Maryland.....	285
William Streets.....	do.....	315	Theresa Johnson.....	do.....	254
William McDonald.....	do.....	180	Maria Marini.....	Ireland.....	225
Lewis Perkins.....	Dist. of Col.....	270	Bridget Welsh.....	do.....	357
William Lane.....	Virginia.....	240	Julia Banks.....	Virginia.....	221
Thomas Johnson.....	Maryland.....	157	Mary Keenan.....	Ireland.....	225
Henry Hayman.....	Kentucky.....	150	Mary Moriarty.....	do.....	201
Richard Nolan.....	Delaware.....	225	Mary Welch.....	Dist. of Col.....	209
Robert Hall.....	Maryland.....	270	Jennie Corcoran.....	Virginia.....	330
Norman Carter.....	Illinois.....	165	Agnes White.....	Ireland.....	282
S. Robinson.....	Maryland.....	240	Clara Williams.....	Virginia.....	180
Samuel Mathews.....	Dist. of Col.....	187	Kate White.....	Dist. of Col.....	195

It will be seen that more than three-fifths of the year is spent by them in the workhouse. Many of them are also confined during a portion of the year in the United States jail.

These people are depraved and have lost all sense of pride and shame. Immediately upon their release from either place of confinement they return to their old haunts, and rejoin the gangs of low character which infest certain portions of our city, only to be arrested within a few days for violation of law and to receive another sentence of brief imprisonment.

Could our laws be so amended that the judge of the police court might require hardened offenders to give proper security for good behavior, or, in default, might sentence them to terms in the workhouse ranging from six months to three years, much good would be thereby accomplished. Larger workshops than we now have could then be established and the persons be taught useful trades. Discipline and enforced abstinence from vicious habits would do much in the way of reform, while the possession of a trade, whereby they might earn an honorable and comfortable living, would have a tendency to waken their dormant self-respect. They could be stimulated to industry, as is done in other institutions, by the promise, on conditions, of a certain proportion of their earnings over the amount necessary to their maintenance.

Much of the District work now done under contract or by job could be done in these shops at trifling cost. I am informed that in Cincinnati a similar plan has been adopted with marked success.

One illustration of the saving that might be accomplished in this way is found in the item of shoes for the inmates of the asylum. The books of the auditor show the amount paid for shoes during the last fiscal year to have been over \$1,300.

The subject of classification of prisoners which is referred to at some length in the report of the intendant deserves careful consideration. As our laws are at present constituted all classes of petty offenders are sent to the workhouse. With our present accommodations, boys under ten years of age who have committed no greater crime than that of throwing stones or bathing in the river during the day; youths who have been led by older associates to commit an indiscretion; young men who have taken their first vicious step, and hardened criminals are of necessity thrown together promiscuously. Young girls who have fallen through weakness and ignorance are brought in hourly contact with the most abandoned prostitutes. Under these circumstances reformation is impossible. It is doubtful whether the old offenders can ever be reclaimed. The younger ones go out in a moral condition worse than that in which they entered. The institution is at present, it seems to me, little better than a school for vice. With the occupation of the new workhouse, however, the situation will be in a measure ameliorated.

The Army and Navy magazines are located on land adjoining that of the asylum. They are a continual menace to the occupants of the workhouse, poorhouse, city hospital, and in fact to the entire eastern section of the city. During the past season a tree within three feet of one of the magazines was struck by lightning. I am informed that magazines have been built by the general government some miles down the Potomac River, and that it is, or was, intended to remove all ammunition from the old ones. If Congress could be persuaded to turn over to the District this old magazine property to be used for charitable and reformatory purposes, the buildings now on the ground might be utilized in our efforts to classify and reform; at the same time an element of danger would be removed from within the city limits.

The new workhouse, which is nearly completed, is of insufficient capacity and will barely accommodate the male prisoners. An additional wing is an absolute necessity. Built on a plan differing in some respects from that of the present structure, in order to insure greater security, the cost would be about \$14,000; while, should Congress pass a law authorizing longer terms of imprisonment, \$6,000 additional will be required to inclose the grounds, erect workshops, and purchase tools and machinery. I recommend that Congress be asked to appropriate \$20,000 for these purposes.

The law authorizing the apprenticeship of children should be amended. As it is at present worded, children may be sent repeatedly to the workhouse, yet if their parents are neither vagrants, paupers, nor drunkards, the children cannot be taken permanently from their control. In a recent opinion of your attorney he expresses a doubt that the guardianship of children bound out, vested by the ordinance of 1820 in the commissioner of the asylum, would be recognized outside the limits of the District. The law should be so amended that proper homes for these children might, if necessary, be obtained in the States without abridging the control of the guardians. In my opinion the commissioner should have power to apprentice such children as are repeatedly sent to the workhouse, it being evident that their parents, though neither vagrants, drunkards, nor paupers, are not exercising that control which is for the best interest of the children and conducive to public welfare.

The following estimates for the fiscal year ending June 30, 1880, are submitted:

Salaries.....	\$9,600
Provisions.....	21,000
Fuel.....	1,600
Forage.....	1,600
Lumber.....	1,500
Hardware.....	1,300
Shoes.....	1,300
Dry goods.....	3,000
Drugs and medicines.....	1,500
New hospital buildings.....	2,000
Contingent.....	1,300
Total.....	45,700

Very respectfully,

GEO. A. CASWELL,

Commissioner of the Washington Asylum.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

APPENDIX Q 1.

REPORT OF THE INTENDANT.

WASHINGTON ASYLUM, November 1, 1878.

SIR: In compliance with your directions the reports of the intendant and the matron of this institution have been prepared to exhibit the exact statistics for the eight months ending June 30, 1878, as the terminus of the last fiscal year; and so as to enable the Hon. Commissioners and yourself to draw a parallel between the condition of this asylum and its inmates during the last and the previous twelve months, for which the last report had been rendered, the figures of the last four months were

also embraced here, but in a separate column, so as to avoid all misapprehensions.

It is to be regretted that neither during the one nor the other of these two periods, any increase of area in these premises has taken place, nor has the completion of the new workhouse building been fully accomplished, though there is some encouragement in its advancement so far as to be ready within a few weeks for the reception of at least the male prisoners; and further, in the erection of several substantial additions to the former structures, and other decided improvements in the internal arrangement of these premises and in the management of the inmates.

Most all of these were undertaken by you, and though not of very large dimensions are of great importance and usefulness, viz: one new frame ice-house, 32 by 24; one new frame wagon-shed, 32 by 14; one new frame cart-shed, 75 by 14; one new blacksmith shop, 22 by 14; one new frame piggery, with six partitions, each provided with flowing water and other fixtures; also 600 feet of new fencing, with five substantial gates, and 700 feet of new park railing with appurtenances; two stables, each for six horses, and one cow-shed for three head of cattle, in each of which the floors and stalls are entirely new.

Almost all this has been done without any expense but that for material, the labor being furnished by the inmates, who have, in addition thereto, also rendered the following services, which otherwise would have been to be paid for by the taxpayers, viz: 4,000 cubic yards, excavating and grading C street, S. E.; 7,000 cubic yards, excavating and grading the road from the Potters' field to Nineteenth street, S. E.; 8,000 cubic yards, establishing connection roads within the asylum premises; 6,000 cubic yards, grading and making terraces around the new workhouse, and other earthwork.

Besides this, the inmates were employed in farm and garden work, as cleaning ditches, digging sewers, closing or opening springs, water-courses, boarding, bricking or tiling the same or other channels and water-connections to and from the fish-pond, the stables, or the piggery, and, finally, establishing two good sized new ponds for open plunge-baths in summer, and with like alterations for ice-ponds in winter.

To effect all this, the previous supply of tools and implements had to be largely augmented, and at least partial outfits for some mechanics, as blacksmiths, carpenters, painters, saddlers, &c., as happened to be sent to the workhouse, had to be provided.

The profits derived from the temporary utilization of such skilled labor were naturally much limited by the brevity and irregularity of the penal terms, yet the repairs alone thereby accomplished more than paid for the cost of these outfits, and this experience suffices to demonstrate that whenever the terms of confinement shall be lengthened for repeated offenses, the employment of prisoners at their own trades will be not only one of the most lucrative resources of this asylum, but also one of the best means of reform for the workhouse inmates.

However, even under the present circumstances, the management, cramped as it is in many directions, and by various causes, may claim economical efficiency and providence, as will further appear in the following enumeration of goods made up by the indoor labor of some inmates, and the stores still on hand for their future employment.

Articles made up by inmates since November 1, 1877.

On hand.	To July 1, 1878.	To November 1, 1878.
Pillow-ticks	23	36
Pillow-slips	44	58
Sheets	20	27
Bed-ticks	31	42
Bed-spreads	3	5
Alms-house shirts	50	65
Alms-house drawers	17	22
Alms-house coats	6	8
Alms-house pants	20	28
Workhouse shirts	32	43
Workhouse coats	53	75
Workhouse pants	166	141
Total number of articles.....	405	550

Material on hand, to be made up by inmates.

On hand.	To July 1, 1878.	To November 1, 1878.
Shirting	240	200
Sheeting	80	50
Ticking	200	150
Cotton wear	250	200
Kentucky jeans	150	50
Wickory	200	150
Buckles	4	3
Buttons	5	4
Cotton spools	7	5
Thread	6	4
Check	100	50

There are also some minor quantities of other stores on hand, which, however, are daily reduced by the arrival of new inmates, and any accumulation thereof is always regulated by an appropriate reduction in the requisitions of the next following month. Still it deserves perhaps to be mentioned that there is now a fair supply of shoes for men and a small one for women and children on hand, and probably prison-cloth enough to suffice for the demands of the remaining part of the present fiscal year.

This latter circumstance is explained by the fact that this article is not in the market, and has to be made up to order in each case of demand, hence small quantities are not obtainable, and therefore the order to be made up last year was in excess of actual immediate demand, and by great economy and care it was managed to keep enough in store for the probable necessities of the remaining eight months.

In other articles, however, as for instance blankets for hospital and general use, there will soon be large quantities to be provided for.

In the line of field-economy results have been realized by far superior to any previous year, though the area available for cultivation still scarcely exceeds 5 acres, to which the repeated cessions of ground complained of in last report have reduced the original 65 acres of good land belonging to this asylum; and as the harvest of nearly all the crops, which only could be obtained by forcing two of them from each field, has fallen nearly all within the last four months, and thereby not within the current fiscal year, it should not appear in this report except for a comparison with the husbandry of the previous twelve months, which

is unavoidable without doing injustice to your administration and the present management.

Agricultural products collected from last report to date.

Quality of crop.	Quantity.	Quality of crop.	Quantity.
Beets	40 bushels.	Tomatoes	40 bushels.
Carrots	50 do.	White potatoes	28 do.
Pease	25 do.	Turnips	50 do.
Onions	28 do.	Cabbages	3,000 heads.
Onion-sets	24 do.	Celery	5,000 plants.
Parsnips	25 do.	Fodder (corn)	2 tons.

By the help of the potters' field and the yards $1\frac{1}{2}$ tons of hay were obtained, and pasturage for three cows, which yielded not less than 2,500 quarts of milk for the use of hospital and almshouse.

In connection with this branch of economy it also deserves to be stated that by cutting down several trees in the ornamental front yards, without marring their beauty, and in other parts of the premises to their direct advantage, a saving in fuel was made, by which not a single cord of burning-wood needed to be purchased during the last twelve months, while formerly never less than 100 cords were required during the same space of time; and another farm produce of great value was realized and used on the place, viz, more than 100 cords of manure.

The vegetables mentioned were nearly all consumed by the inmates, much to the improvement of their sanitary condition; and farm crops were used for the live stock, the present strength of which compares with that of last year as follows:

In place of 8 horses there are now 9 (including 1 mule), and instead of 4 head of cattle there are only 3, the bull having been slaughtered, and 3 calves (dropped during the year) sold by your orders for the benefit of the institution.

The main increase in this stock consists in the new piggery established by you, counting now 40 hogs, of which 12 are full grown, 11 large shoats, and 17 sucking pigs. All but 3 are of good but ordinary breed, but these 3, viz, 1 boar and 2 female shoats, are of the purest Berkshire blood, each with a full and genuine pedigree, introduced for breeding, and gradually improving the entire stock.

These hogs are fed principally from the remnants of kitchen and table, and hence their support causes little or no expense. They probably would yield 6,000 pounds of fine pork now, but next year, unless mishaps should occur, they will yield certainly not less than 20,000 pounds.

The exhibits unquestionably indicate a material enhancement of value in the property of this asylum, which naturally could not have been effected without some more than ordinary expenditure. But as such outlays can now be dispensed with for several years, it would be manifestly unfair to charge them fully and only to the budget of this year, or, if so, there should certainly also the pecuniary value not only of the products realized, but also of every asset created, within this period, be credited to it against the amounts expended for the same.

This has never been done as yet, and thereby many indirect, yet not the less equitable credits for this asylum have been forgotten or neglected, much to its disadvantage, as, for instance, the many thousands of ornamental trees raised annually on the best portions of its grounds for the benefit of the national capital, yet to the exclusion of any other use or profit to itself or its inmates, and all this without any equivalent

compensation or reciprocation; the many hundreds of coffins made here and used elsewhere, the medicines and medical care bestowed upon persons not inmates and the burials of their bodies in case of death here or elsewhere; further, the services rendered by inmates or animals of this institution outside of its premises, and various other gratuitous performances, for which the recipients thereof claim, and, if reports are correct, not in a few cases also obtain, remuneration and even appropriations from Congress.

This is certainly not as it ought to be, and though it may be difficult to calculate precisely the pecuniary loss accruing to this asylum or its exchequer from such sources, it cannot be called an exaggeration to estimate it for the last year alone at from \$10,000 to \$15,000, if only the laboring forces are considered, which are enumerated in the following statistics of its inmates, and the services which actually were or could be rendered by them, if proper facilities and inducements or at least due recognition were given for their exertions.

TABLE No. 1.—*Number of inmates.*

	November 1, 1875.	November 1, 1876.	November 1, 1877.	July 1, 1878.	November 1, 1878.
Number present in almshouse	155	169	208	173	196
Number received in almshouse	456	428	283	364	
Number born in almshouse	20	16	26	8	
Total received to date	631	613	517	372	
Number discharged from almshouse	366	319	295	154	
Number died in almshouse	96	86	49	22	
Total lost to date	462	405	344	176	
Number present in workhouse	150	164	152	99	119
Number received in workhouse	2,099	1,695	1,121	650	
Total received to date	2,249	1,859	1,273	749	
Number discharged from workhouse	2,000	1,595	1,128	620	
Number escaped from workhouse	79	108	42	9	
Number died in workhouse	6	4	4	1	
Total lost to date	2,085	1,707	1,174	630	

Recapitulation.

	July 1, 1878.	Nov. 1, 1878.
Total number present in almshouse	173	196
Total number present in workhouse	99	119
Total number of officers and employes	12	12
Aggregate of all inmates	284	327

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TABLE No. 2.—*Distinction as to sex and color.*

	July 1, 1878.	Nov. 1, 1878.
IN ALMSHOUSE.		
Received (including births):		
White males	79	67
White females	61	46
Colored males	84	48
Colored females	85	38
Total received to date	309	508
IN WORKHOUSE.		
Received:		
White males	331	195
White females	145	87
Colored males	493	291
Colored females	152	77
Total received to date	1,121	650

The next table, viz, No. 3, "Nativity of inmates," exhibits merely the nativity of those received within all twelve months of last year, because there is no parallel for eight months only, in last report.

TABLE No. 3.—*Nativity of inmates received.*

	Alms- house.	Work- house.		Alms- house.	Work- house.
District of Columbia	128	481	Ohio		6
Maryland	89	376	New Jersey	2	10
Virginia	144	443	North Carolina	2	7
New York	13	58	Georgia		1
Pennsylvania	10	63	Tennessee	1	4
New Hampshire		2	Mississippi		1
Louisiana	2	2	Michigan		1
Connecticut	1	7	Kentucky	4	9
Massachusetts	1	12	West Virginia		2
Alabama	1	1	Illinois	1	4
Maine	2	5	Florida		2
Delaware		1			
South Carolina	5	8	Total from United States		1,506
Ireland	69	175	Java		1
England	10	26	France	1	5
Scotland		4	Santa Cruz		1
Germany	18	32	Cuba		1
Denmark		1	Malta		1
Austria	1	2	Italy		2
West Indies	1	2	At sea		2
Canada		2	Switzerland	2	1
Russia		3			
Sweden		4	Total from foreign countries		265
Total in almshouse from this country					
Total in almshouse from foreign countries					406
Aggregate in almshouse					102
Total in workhouse from this country					508
Total in workhouse from foreign countries					1,506
Aggregate in workhouse					265
Received from November 1, 1877, to October 31, 1878, in the whole asylum					1,771
					2,279

The numbers of this table show that only 25 per cent. of all inmates were born in the District of Columbia, and even when adding to them those born in foreign countries, this total number is still exceeded largely by that of inmates from other sections of the United States, who ought to be sent to their homes, instead of being fed and clothed at the expense of this community.

TABLE NO. 4.—*Number of deaths.*

	Alms-house.	Work-house.		Alms-house.	Work-house.
November, 1877.....	7	1	July, 1878.....	11	0
December, 1877.....	7	0	August, 1878.....	1	0
January, 1878.....	7	0	September, 1878.....	3	1
February, 1878.....	3	0	October, 1878.....	7	0
March, 1878.....	7	1			
April, 1878.....	6	1	Total last four months.....	22	1
May, 1878.....	3	0	Total June 30, 1878.....	49	4
June, 1878.....	9	1	Aggregate October 31, 1878..	71	5
Total June 30, 1878.....	49	4			

All but few of the deaths of inmates occurred in the hospital attached to the institution.

TABLE NO. 5.—*Number of burials in potters' field.*

Months.	No.	Months.	No.
November, 1877.....	26	July, 1878.....	54
December, 1877.....	49	August, 1878.....	41
January, 1878.....	48	September, 1878.....	38
February, 1878.....	39	October, 1878.....	33
March, 1878.....	48		
April, 1878.....	50	Total of the whole year.....	505
May, 1878.....	41		
June, 1878.....	38		
Total in eight months.....	339		

This number of burials comprises all who died in the institution but 5, who were buried elsewhere.

TABLE NO. 6.—*Number of coffins furnished.*

Months.	To health authorities.	To asylum.	Months.	To health authorities.	To asylum.
November, 1877.....	44	8	July, 1878.....	71	10
December, 1877.....	45	6	August, 1878.....	63	1
January, 1878.....	58	6	September, 1878.....	43	4
February, 1878.....	54	3	October, 1878.....	38	7
March, 1878.....	55	8			
April, 1878.....	57	5	Total the whole year.....	635	71
May, 1878.....	56	3			
June, 1878.....	51	10			
Total in eight months.....	420	49			

Total number of coffins made..... 734

Total number of coffins issued..... 706

On hand October 31, 1878..... 28

TABLE NO. 7.—*Comparative mortality.*

	In alms-house.	In work-house.
From November 1, 1874, to October 31, 1875.....	77	3
From November 1, 1875, to October 31, 1876.....	96	6
From November 1, 1876, to October 31, 1877.....	86	4
From November 1, 1877, to October 31, 1878.....	71	5
From January 1 to December 31, 1872.....	202	0
From January 1 to December 31, 1873.....	250	3

STATISTICS OF SMALL-POX HOSPITAL.

From November 1, 1877, to October 31, 1878:

Admitted (malignant measles).....	1
Discharged (cured).....	1
Remaining.....	0

Two still-births, which have happened in the hospital during the year, have not been embraced in this report for the obvious reason that neither loss nor gain is caused by such cases.

When glancing over the preceding tables, it must be remembered that the statistics of the last four months, mostly given in separate columns and always in separate additions, properly do not belong to this report, but were introduced for reasons previously stated, and they will be repeated in the next report as a part belonging to the current fiscal year ending June 30, 1879.

TABLE No. 8.—*Misdemeanors charged against prisoners.*

Charges.	No.	Charges.	No.
Disorderly conduct.....	583	Indecent exposure and disorderly conduct.....	1
Disorderly assembly.....	37	Keeping bar without license.....	2
Disorderly assembly and carrying concealed weapons.....	7	Keeping business without license.....	5
Disorderly conduct and destroying property.....	2	Enticing prostitution.....	3
Vagrancy.....	552	Violating car law.....	2
Injuring private property.....	34	Violating market regulations.....	1
Injuring public property.....	5	Firing pistol in alley.....	4
Trespassing in park.....	20	Driving over footway.....	1
Carrying concealed weapons.....	40	Driving too fast.....	4
Throwing stones.....	34	Placing filth in street.....	1
Disturbing church.....	2	Obstructing sidewalk.....	1
Watering horse at hydrant.....	1	Creating a nuisance.....	1
Refusing to pay legal hack-hire.....	1	Being a professional thief.....	3
Refusing to pay legal hack-hire and carrying concealed weapons.....	1	Playing ball in street.....	2
Refusing to assist officers in making arrest.....	1	Flying kite in street.....	1
Profanity.....	345	Tying horse to tree.....	1
Profanity and throwing stones.....	1	Bathing at unlawful hours.....	7
Profanity and disorderly conduct.....	1	Peddling without license.....	1
Profanity and carrying concealed weapon.....	3	Escaped and recaptured.....	14
Indecent exposure.....	33	Fighting dogs in alley.....	1
		Total.....	1,771

Each of the foregoing tabular exhibits teaches its own peculiar lesson, and therefore deserves a brief explanatory notice.

Thus table No. 1 shows in its annual aggregates an increase in numbers received, yet a decrease in the numbers remaining, over those of last report, a circumstance which, together with the diminution in deaths and escapes, furnishes a comment certainly not unfavorable to the present sanitary condition and discipline of this asylum.

Table No. 2 presents a larger number of men than women, and more colored than white among the inmates; and the ratio between them, while of no great significance among the paupers, is striking among the prisoners, viz, 2.1 of males to females, and 3.2 of colored to white, which proportion may nearly be interpreted as a criterion of morality among these sexes and races when at large. When under confinement, however, their conduct causes entirely different inferences, and while the behavior of white is generally better than that of colored female prisoners, this relation cannot be applied to the male prisoners, of whom the colored ones are with few exceptions by far the most obedient, grateful, and industrious, and the white ones the most discontented, unruly, and lazy.

Table No. 3 proves what has been already alluded to, viz, that by far the greatest quota to the contingent of inmates in either branch of this

institution is furnished by the influx to this city, as the national capital, from other States or Territories of this country, where seldom, if ever, prisoners or paupers can be found to hail from this District. This condition may be natural, yet it is therefore not the less burdensome and inequitable to the taxpayers of this small commonwealth, who, without thanks, assistance, or reciprocation from any direction, have thus to defray not only the expenses created by the misdemeanors of their own wayward fellow-citizens, but also those caused by the ill conduct of such half alien and wholly unprofitable and unwelcome visitors to the seat of the government.

This manifest hardship weighs heavily and unduly upon this not very rich community, defaming its moral reputation and absorbing much of its scanty means for local demands, and this should surely be a strong argument with the honorable our Commissioners, not only as the representatives of our local hopes and lawful wishes, but also in their capacity as officers of national trust and honor, to call the attention of Congress during its next session to the urgent needs of this asylum, and its just claims of national assistance, if not full support, for its services contribute by far more to national than to domestic charity and reform.

Therefore, sir, I beg leave to entreat you, with due respect toward the honorable Commissioners and yourself, never to cease importuning them, to call upon Congress for a liberal appropriation, if not a permanent endowment for this institution, by which alone it can fulfill its true mission, viz, not to be merely a small establishment for local benefits, but to become a model for other institutions of similar scope, and to show by its progress and success the wisdom and philanthropy of this nation and its government in the prevention and redress of social defects.

Tables Nos. 4, 5, 6, and 7 refer to sanitary matters, and confirm the statement that besides the inmates of this asylum there are outside of it also numerous recipients of benefits, for which never yet have any returns been made, but at least credits should be allowed, as they clearly emanate from its domestic labor and material, such as the manufacture of coffins, the transportation of sick and dead, burials, &c.

Table No. 8 is probably the most instructive of all, by its enumeration of misdemeanors which led to the confinement of the inmates in the workhouse. The inferences suggested by it indicate some of the best means for the moral and intellectual improvement and reform of prisoners before and after discharge, and therefore would deserve a much longer and deeper discussion than the limits of this report will permit. Still it cannot be out of place here to mention some of the most obvious impressions forced upon any one who takes an interest in social reform.

First. Most all serious offenses enumerated may be traced back to either ignorance, idleness, inebriety, or prostitution as their radical cause, and next, there is a great gulf between the moral depravity of some and other offenders.

The minor cases of amenable misconduct are most frequently committed by youths, either in mere thoughtlessness or exuberance of animal buoyancy; or by adults without premeditation, under temporary provocation or other extenuating circumstances. It is at least questionable whether or not such misdemeanors should be classified and punished together with others committed deliberately by habitual lawbreakers or devotees to vice or moral perversion, yet the present code of our penal laws leaves no option either to judge or court, and it is surely true, beyond question, that the contact of these two classes of offenders in the same common prison is beneficial to neither of them, and is positively injurious to the young and least depraved.

This clearly betrays some serious defects in the present method of dealing with such offenses and offenders, but they seem to be rooted in the very laws, as neither any judicial nor executive authority can remedy them. It is, therefore, herewith respectfully recommended that the honorable Commissioners may please bring this deficiency in our laws also to the notice of Congress, for the purpose of having them reviewed and so amended as to have hereafter the misdemeanors and their punishment classified in various grades, whereby the lesser moral guilt may be discriminated from the graver, and the beginner separated from the expert in law-breaking, and especially that repetitions of punishable misconduct may be followed by a becoming increase in length and severity of the sentence in each case.

As it is, now the limit of ninety days-imprisonment for the gravest breach of law which may come under the jurisdiction of the police court, however often repeated, will never keep the chronic slaves of immorality long enough under the influence of discipline, labor, and instruction to make them forget or shun their former haunts and companions in evil, and their association in one prison with others less advanced in low and wicked habits cannot but counteract even the efforts for the reform and restoration to usefulness of the latter.

The brevity of the present penal terms, however, creates another serious disadvantage to this institution, viz. it prevents any success in the instruction of prisoners in skilled labor, which might serve them as inducement and means for an honorable life after their discharge, and nothing speaks louder for this view than the fact that good mechanics are not only rare denizens of the workhouse, but when here they are, with few exceptions, the best behaved and most industrious inmates and the least susceptible to the bad example of worse characters.

Much more might and should be said about the necessary increase in the facilities for the reformatory efficiency of this institution, but trusting you will select this subject for discussion and suggestion in your own report, and, not wishing to forestall your ideas and recommendations in regard to the expansion of space and scope of this asylum, when the removal of the prisoners to the new workhouse shall take place, I merely beg you not to delay any of the most energetic measures in this direction, and especially not the establishment of a clear and permanent code for the internal government and discipline of either of its branches, in which the exact duties of each official, employé, or inmate will be defined, and the manner and duration of correction for each misconduct among the inmates, while on the premises, be fixed beyond discretion or arbitrary construction.

Closing with this, I beg you to convey to the honorable Commissioners my respects and thanks for the uniform courtesy and encouragement by which they have supported me in my efforts for the care of the charge intrusted to me, and to please accept for yourself this expression of my gratitude for the urbanity by which you have eased many of my unpleasant duties, as well as of my high appreciation of the zeal and energy which you have devoted to the interest and success of this asylum.

I would do wrong, however, should I fail on this occasion to recognize also, with thanks and high regard, the faithful co-operation and assistance rendered by the officials and employés associated with me in the management of this institution, and their valuable services under many trying circumstances.

With this acknowledgment, and the hope of seeing this institution

speedily become an object of pride to yourself and every one connected therewith, I have the honor to sign myself,

Very respectfully, E. F. M. FAEHTZ, *Intendant.*
GEO. CASWELL, Esq.,
Commissioner, &c.

REPORT OF THE MATRON.

WASHINGTON ASYLUM,
Washington, D. C., November 1, 1878.

SIR: In accordance with your orders, and usage, I have the honor to report that of the women under my charge as matron, as many as were able, whether prisoners or paupers, were employed during the past year in sewing, washing, ironing, cooking, scrubbing, and other housework. The seamstresses among the prisoners, about eight on an average, were occupied in the sewing-room, with the help of two sewing-machines, in making and repairing prison clothes. The pauper women worked in their rooms, and supplied all the demands of the almshouse in women's clothing.

Other women, not capable of any labor mentioned, were engaged in the care of the entirely helpless inmates of the almshouse, there being four paralyzed and six blind women, and fifteen children under three years of age.

For the poor children from six to twelve years old, nine in number, there was a daily school established, by direction of the intendant, of which I conducted the management as far as the limited means of instruction and my other duties would permit, but, by the assistance of one of my nieces, I hope to have accomplished some good.

The number of articles made for the workhouse consisted of—

Articles.	To July 1, 1878.	To Nov. 1, 1878.	Articles.	To July 1, 1878.	To Nov. 1, 1878.
Caps	11	11	Shirts	420	552
Pairs pants	150	215			
Coats	80	107	Total	661	885

Those made for the almshouse were—

Articles.	To July 1, 1878.	To Nov. 1, 1878.	Articles.	To July 1, 1878.	To Nov. 1, 1878.
Shirts	150	202	Children's suits	18	29
Coats	32	45	Boys' suits	9	13
Pairs pants	49	62	Dresses	126	156
Bed-ticks	104	154	Skirts	48	83
Pillow-ticks	35	50	Children's skirts	26	31
Pillow-cases	80	114	Chemises	210	244
Bolster-cases	4	4	Gowns	10	19
Sheets	100	127	Caps	6	6
Spreads	47	47	Sacques	18	41
Towels	20	32	Sun-bonnets	6	9
Pairs drawers	175	215			
Aprons	60	79	Total	1,333	2,651

In addition to this list, about 2,000 articles were repaired.

Very respectfully,

MRS. A. M. FAEHTZ, *Matron.*

GEORGE A. CASWELL, Esq.,
Commissioner Washington Asylum.

APPENDIX Q 2.

REPORT OF THE VISITING PHYSICIAN.

WASHINGTON ASYLUM HOSPITAL,
October 26, 1878.

SIR: I have the honor to submit the following report of the hospital department of the Washington Asylum from November 1, 1877, to July 1, 1878, a period of eight months.

Number in hospital November 1, 1877, 83, including 6 employés: males, 41; females, 42; white, 37; colored, 46. Admitted, 284: white males, 78; white females, 67; colored males, 68; colored females, 71; including children under 5 years, 17—white female, 1; colored males, 7; colored females, 9. Births, 29: white males, 4; white females, 5; colored males, 15; colored females, 5. Discharged, 241: white males, 61; white females, 55; colored males, 58; colored females, 68; of these, 5 were sent to Insane Asylum. Deaths (including children under five years, 10, and still-born, 2), 53: whites, 14; colored, 39; males, 31; females, 22; leaving in hospital, July 1, 1878 (including employés, 6), 49.

No patients have been admitted into the small-pox hospital since last report.

The sick-call at the workhouse is attended by a daily average of 6. Many who present themselves there are making cases, only seeking to be excused from work; but the number of those requiring medical aid may be judged of from the fact that 1,600 prescriptions have been dispensed to the prisoners alone. The almshouse and the shanties are also regularly visited and medicine given as required, so that the aggregate number of prescriptions for both places may be set down at 2,000.

Patients from either of these departments who, in the judgment of the medical attendants, require especial treatment, are brought to the hospital. Of the number of prisoners so disposed of, it gives me pleasure to state that only two have escaped.

The number of patients, exclusive of those born in the hospital, admitted from the District was 75; foreign born, 85. The balance represented nearly every State in the Union; Maryland and Virginia having more than two-thirds.

The death-rate has been high. I account for it by the fact that only the very poor—not only those who are without means of obtaining the common necessities of life but those who are thus reduced by habits of the lowest dissipation and by disease thus contracted—form by far the largest proportion of cases brought to this institution. Then, if we eliminate from the list of mortality those who have died of phthisis, a disease which, under the conditions patients are brought here, may be said to be incurable (15) and senile debility (10), we have a death-rate which will compare favorably with that of similar institutions elsewhere.

The number of cases of labor was 27; number of children born, 29, one being a case of triplets. There are now in the wards 3 women expecting confinement. Of those having children, 5 are believed to have been married.

It will be seen that there has been a large increase—nearly 100 per cent—in this department of the hospital over last or, indeed, over any previous year, and the results have been most satisfactory, both as regards mothers and children. No deaths among the lying-in women; while infant mortality has prevailed only when the children have been obliged to be hand-raised; the percentage of deaths even then being no greater here than is usual to that condition of infantile life everywhere.

Nine white women have been compelled by the hard times prevailing in our midst to seek that care and attention here which under more favorable circumstances they would have received at home. There was no place for them, except in the colored women's ward, and apart from other considerations, dwelt upon in my report of last year, there was not actually in that ward space for their proper accommodation and treatment. Under these circumstances, I have used, temporarily, I trust, the mess-rooms of the hospital for the white women's lying-in wards. There was no other place for them. While this arrangement has been satisfactory, as far as these poor women were concerned, it worked a decided disadvantage to the employés, convalescents, and those able to go to mess, by compelling them to take their meals in the wards, thus subjecting them to many and nameless inconveniences.

It is earnestly hoped that the recommendation made in my last annual report for the erection of a ward for white women similar to and adjoining the colored lying-in ward will be speedily acted upon. The late Colonel Lubey strongly advocated it and presented estimates of its cost in his report for 1877.

In the estimate alluded to he also included the cost of an addition to the office and dispensary, one of the pressing needs of the hospital, and when the new workhouse is occupied will be doubly necessary.

It is an anomaly in hospital experience to find the quarters of the medical officers remote from their immediate post of duty, as in this institution. I do not suppose that such a condition of affairs exists in any other similar place in the country. With sleeping apartments in the *hospital grounds*, the physicians would be equally on hand for calls to the alms or work house, while the actual sick would be, as should be the case here, directly under their supervision.

The intention, if such has been entertained, of having a ward in the workhouse for sick prisoners is most objectionable for two reasons, namely: The noise and confusion in such a place, especially at night and early morning, cannot be controlled, and will counteract the best medical treatment, and then there is the almost, I may say, impossibility of having reliable and experienced nurses to attend the sick there.

An estimate for an addition to the office and dispensary has lately been sent to the commissioner of the asylum, which will involve only the cost of material and the plastering; all other work to be done by such labor as may be found among the inmates of the hospital and without cost.

By permission of the authorities, the nurses, one in each ward, have been placed upon the pay-roll. This has been found to work very much to the improvement of the service, both as regards attention to the sick and the care of the property of the wards. They have now an inducement to work faithfully in the interests of the institution, for they know that any serious violation of rules will lose them both money and place. Unkind treatment to patients, theft, drunkenness, or smuggling liquor into the hospital inclosure are, in all instances, punished by instant dismissal.

More than a year's observation of the workings of the hospital and a careful study of its wants satisfy me that many things are essential which should be provided as a measure of economy in its management, to some of which I will briefly call attention, hoping that a wise liberality will provide for them.

If the washing for the hospital could be done on the grounds, it could be done better, and with less wear and loss of material, than under the present system.

All the coal used in the place during the past year had to be wheeled

in barrows from the coal-yard in the rear of the asylum up a heavy grade; a work of no small labor, as it had to be done by the inmates of the hospital, few of whom have the physical strength for such work. This can be avoided, as has been done recently by permission of the attendant, by hauling the coal to the south inclosure of the grounds, whence it is more accessible. It is my intention, with his co-operation, to make this a permanent arrangement.

The present arrangement of the wards prevents a proper classification of patients, and obliges us to mix indiscriminately all forms of disease. A law, enacted so long ago that it seems to have been forgotten, forbids the reception of contagious diseases upon the premises of the almshouse; yet we have been obliged, in several instances, to take in cases of scarlatina, measles, whooping-cough, &c., and this while we have had infants and lying-in women in close proximity. Only a few days ago, a child, supposed to have scarlet fever, was sent here from the Industrial School in Georgetown.

I attended, for several years, one of the largest institutions for the care of children in the city, and during that time an epidemic, of measles one year and of scarlet fever another, broke out there. It never occurred to me, or to those in charge, to send the sick children elsewhere for treatment because they had such diseases. Provision was made for them there, and it should be so arranged in all kindred establishments.

We have always in charge a number of cases of chronic ulcers and the various forms of syphilitic diseases, whose very presence in a ward is a source of continual danger, vitiating the atmosphere, and placing under unfavorable conditions for cure all who may be brought under such influence. We have no means, at present, of avoiding this evil, unless another ward, similar in size to the white female ward, the interior arrangements of which could be such as to admit of classification and separation, and which would give ample room for all practical purposes, be built. Such building was recommended in my annual report for 1877, and I am now, after a more extended experience, more than ever impressed with its necessity.

The ventilation of the wards is not as perfect, especially in winter, as a proper regard for sanitary conditions calls for. I suggest, as the most economical arrangement, that patent ventilators be placed in all the wards, and present this suggestion with the full conviction of its necessity to the health and comfort of the inmates and of the medical officers as well.

I take pleasure in calling attention to the condition of the buildings and grounds in the hospital inclosure. The wards are in good order, with good beds and, generally, good bedding, with all other suitable furniture. They are kept scrupulously clean by frequent scrubbing, whitewashing, and painting, all done by the nurses and such inmates as are able to work. The grounds have been well attended to, and present now, as at all times, a neat and pleasing appearance. Several new walks have been laid out, and are now finished, which add greatly to the convenience and beauty of the place.

A dozen shade-trees, with a few evergreens, would make a useful and attractive addition.

We have always some among the inmates who are able to do light work, and whose moral and physical condition are bettered by such labor. We avail ourselves of this, and besides keeping the walks trim and clean, the grass cut at proper times, and the flower-garden in full bloom all the summer, have raised enough vegetables, such as onions, beets, radishes, tomatoes, &c., to give all in the hospital a plentiful daily supply, in addition to their regular diet.

A hennery has also been started, which, if as successful as it promises to be, will, for a portion of the coming year, do away with an item of considerable expense, by supplying all the eggs used in the premises.

I have always found the sanitary condition of the almshouse and the prison to be as good and as well maintained as the generally crowded condition of those departments will admit. In the shanties, where the colored male paupers have their quarters, the beds, bedding, and other furniture is of good quality and sufficient, and the inmates appear to be comfortable and well provided for. The roof of one of these quarters needs repairing, as I have been informed that it leaks badly.

Those inmates of the Industrial School in Georgetown who are under the charitable care of the District have been visited by me at different times as they have required medical attention. As they are but few in number, it would be advisable, if there are no special reasons for keeping them there, to transfer them to this institution.

It may be well for me to state my reasons for not furnishing a full statistical report from July, 1877, to July of the present year. I was unable to do so, from the fact that we were without a record-book from the middle of July to the end of October, 1877, though several requisitions and repeated personal applications were made for one. The report of last year for that period of time was made up mainly from the daily prescription-books and other sources not now available.

I cannot close this report without making gratifying mention of the pleasant relations, personal and official, existing between the officers of the institution. Mr. Caswell, the commissioner, and Colonel Faetz, the intendant, have ever been obliging and willing to aid in advancing the interests of this department.

The resident physicians, Drs. Faulkner and Hazen, have discharged their onerous and responsible duties with intelligence and zeal. I regret that we are to lose the services of Dr. Faulkner. He has made an honorable record for himself by his efficient executive ability, as well as by his skill and judgment in the treatment of the sick.

Respectfully, &c.,

JNO. I. DYER, M. D.,

Visiting Physician Washington Asylum.

GEO. A. CASWELL, Esq.,

Commissioner Washington Asylum.

Death statistics.

Cause of death.	White.	Colored.	Male.	Female.	Total.
Tubercular peritonitis		1		1	1
Ascites		2		1	3
Phthisis pulmonalis	3	11	6	8	38
Rheumatism, chronic	1		1		2
Inanition		3	2	1	6
Diarrhoea, chronic	1			1	2
Congestion of lungs		1	1		2
Pneumonia, chronic		1	1		2
Senile debility		9	8	2	19
Marasmus	1	1		2	4
Atelectasis pulmonum		1		1	2
Tertiary syphilis		1	1		2
Carcinoma of breast	1			1	2
Amblyopia		1		1	2
Valvular disease of heart		2	1	1	4
Apoplexy	2	3	4	1	10
Tetanus		1	1		2
Congestion of brain	2			1	3
Interms neonatorum	1		1		2
Pneumonia, acute	1	1		2	4
	14	39	29	24	106

APPENDIX Q 3.

FOURTEENTH ANNUAL REPORT OF THE INDUSTRIAL HOME SCHOOL OF THE DISTRICT OF COLUMBIA.

"To reform the pauper and criminal is well, though expensive it be. To prevent pauperism and crime is better, and costs less. The one does credit to our philanthropy, the other gives evidence of wise statesmanship."

WASHINGTON, D. C.,

1878.

GENTLEMEN: We have the honor to submit herewith the fourteenth annual report of the Industrial Home School of the District of Columbia, for the year ending October 30, 1878, with accompanying documents, viz: report of superintendent of the home, L. Barnes; report of foreman of the shop, A. Remy; report of treasurer, M. V. Buckley.

We have cause to be thankful for the favors and blessings attending our efforts during the past year, and yet we often feel impatient that the industrial feature of our ideas so slowly gains ground.

For fourteen years we have pressed these ideas on public attention with all the earnestness in our power, by lectures and reports, and more particularly by our own workshop.

We have established the fact beyond question that our aims are practicable, and really contribute to the public welfare. Yet we are forced to witness the humiliating spectacle of organizations in other places, which have followed out our ideas, in the space of three or four years grow into large flourishing institutions, with elegant buildings and surroundings, affording homes and instruction to hundreds of children, while we are compelled by limited means and room to refuse admittance to many cases of destitute applicants, who should by all means be rescued from their pitiable condition, and not be left to shift for themselves and so ultimately become a burden to the community.

At the State public school of Michigan, organized in 1874, they have gone ten times as far in four years as we have in fourteen, simply because the people of Michigan are enthusiastic on the subject of human progress, and wise enough to see that it will be money in their pockets in the end to educate their dependent children, give them a trade, and so make them useful citizens.

We all recognize the fact that the greater part of mankind must get a living by some sort of handicraft or manual labor; also, that skilled labor commands good wages all over the world, in civilized and uncivilized countries; also, that in all large communities there are hundreds of dependent children that must be brought up at public expense, or else degenerate into confirmed paupers and criminals.

It is known for a fact by those who have investigated the subject, that where children are brought up in large numbers together, in institutions devoid of the means of industrial training, both girls and boys are apt to turn out badly, and eventually tend towards indolence and helplessness. And why not? They are thrown on the world at an early age, with a little schooling, and nothing else; whereas, if they were all taught useful trades, the whole would be changed. They cannot teach themselves, or find places to learn trades; nobody will have them. It is clearly a public duty, and a matter of simple justice to the children, as also correct in political economy, to provide the means to teach them how best to employ all their faculties.

The public-school system, with all its great advantages, is felt to be incomplete by its warmest and most intelligent advocates, because it lacks *industrial* training. The minds and brains of the children are de-

veloped, leaving their hands uneducated. At sixteen there are a great many bright pupils; but what can they do? We cannot expect them all to be clerks or teachers.

There is no reason why the responsibilities of this institution should devolve upon a few, when it is such a plain public duty to carry the work forward. We have all these years received and provided for as many as we possibly could, without money and without price, and many young men and women of good repute can testify in their own behalf to the efficiency of our training.

Mr. J. M. Wilson, the eminent lecturer on technology, in his able memorial to Congress last year, deplores the lack of industrial education throughout the country; "that the children of respectable parentage are drifting into habits of idleness, becoming non-producers, and eventually dangerous to the welfare of the country"; and further, "there is *no* remedy for those entirely ignorant of any trade or profession by which they can support themselves."

If this be true of children having parents able and willing to provide for them, how forcibly does it apply to the class of children we devote ourselves more particularly to.

The report of the Home in Kent, England, organized in 1864, states that they have workshops where bread-making, store-keeping, engineering, printing, tailoring, gardening, painting and glazing, carpentering, and farming—ten trades—are taught. The workshops form a part of a large central building, which, in addition to the residence of the head master and teachers, and committee-rooms, also contains the needle-room in charge of a sewing-mistress, the laundry under a laundress, and the swimming-bath for all the boys.

Mr. A. O. Charles, the efficient superintendent of the "Farmingham College Homes," in an address to the Lord Mayor of London, reviews the subject at length, and advocates the industrial training of dependent children, and in closing his most eloquent address, bids the children to "look up! and as you see so many of your old companions progressing and prospering in life, resolve, God helping you, that you will leave no stone unturned to make yourselves useful men, citizens of a country of which you need not be ashamed, and which shall never be ashamed of you." The country should so train and develop its dependent children that it may be proud of them under all circumstances.

Thomas K. Beecher, in considering the subject, says that poverty injures a boy's prospects more than crime. If a boy will steal a watch, or a bolt of silk, he is arrested and sent to an admirable reformatory, where the buildings and grounds cost \$800,000, where he will be so trained and treated that if he knew of any way of getting his own son into that institution without his being guilty of a crime, he should not hesitate to commit him at once. And yet so little is done to train the helpless innocent in a like efficient manner.

The Daily Telegraph, London, June 18, 1878, in an able article on this subject, urges upon the attention of the government the necessity of providing industrial institutions for the children of drunkards and paupers, who are doomed to a life of involuntary vagabondage, from which it is impossible for them to escape unassisted.

At a meeting held in Exeter Hall, London, the lord chancellor, addressing a crowded meeting, adverted to the large number of children in that metropolis that were wholly unprovided for, a class of boys for whom the education in the schools would be of very little use, because *industries* were omitted.

The whole civilized world is considering this great question, how to

educate and train the juvenile population of cities so that it shall become an advantage instead of a burden to the commonwealth; and we here again present to you, the honorable Commissioners of the District of Columbia, the claims of hundreds of children appealing to us to be taken in and made useful men and women of, and through you to Congress for liberal aid.

The buildings we occupy as a home need repairs sadly; also a bath and general meeting-room are wholly wanting. Our industrial department is in a rented building, more than a mile distant from the home. We therefore renew our application for an appropriation of \$25,000 toward erecting, under your supervision, the greatly needed facilities of a workshop, and effecting the indicated improvements upon the home already the property of the government.

We take pleasure in inviting your special scrutiny of the economy we exercise in the management of the institution intrusted to our charge, when taking into consideration the self-evident extent of good results we present. We earnestly ask that you will, as heretofore, co-operate with us in the good work of preventing crime and pauperism.

While thanking you, gentlemen, for the encouragement you have been pleased to favor our efforts with in the past, we also beg here to tender acknowledgments for the uniform courtesy shown our institution by your efficient commissioner of the Washington Asylum and his able assistant the intendant.

By order of the board of managers of the Industrial Home School of the District of Columbia.

H. W. BLACKFORD,

Secretary.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

ANNUAL REPORT OF SUPERINTENDENT AND MATRON OF INDUSTRIAL HOME SCHOOL.

On the 1st of February last we took charge of the school, and from the time of the last report to that date we can say nothing.

At that time we found registered on the books of the institution as inmates 27 boys and 10 girls. Since the 1st of February to the present time there have been 17 children admitted, making the total number of children cared for during the year, 56.

Out of this number homes have been found for 3 girls—all have been fortunate in procuring good homes—1 died, 1 in hospital, 3 removed by parents, together with 3 children of our own, making a total at present of 33 boys and 15 girls, or 48 in all.

Of the larger boys 13 have worked in the shop at different times, and during school vacation 11 have been regularly employed there.

We also endeavor to teach the children elements of farming, gardening, and fruit-raising, which, had we greater facilities, might be advantageously enlarged upon.

The girls are employed about the house in sewing, dining-room work, and other household duties.

Since the commencement of the school-year 17 of the boys attend the Georgetown public schools, and 11 of the smaller boys with 12 girls attend gratuitously, by the kind invitation of the principal, the private school of Miss Rosa Nourse.

For the nine months of our stay here, the general health of the chil-

dren has been good, although we have had some sickness and one death; yet we have been very fortunate, for we have had one case each of measles and whooping-cough, which were kept isolated from the rest, so that no other children took the disease.

It gives us pain to record the death of Ida May Lord, an interesting little girl of 5 years, who died very suddenly August 23 of diphtheria and membranous croup. It was one of those malignant cases where human aid seemed unavailing. Everything was done for the little sufferer that could be, but nothing could save, and death claimed her, and we trust she has gone to Him who will fold her in His arms and carry her in His bosom.

The children are all being taught vocal music each evening in the week, and have made good progress. Many of them have fine voices. One of the larger boys, whose education has been sadly neglected, is taught every evening at home, and seems to appreciate the opportunity and applies himself very diligently to study.

On the 4th of July the children were provided with a bountiful dinner, and in the evening they had a fine display of fire-works with which they were highly delighted, all under the direction of the foreman of the shop.

On the 26th of June we received from the Commissioners a good, serviceable horse, to use on the place, which we are very thankful for, and will be of great service to us in putting in our early crops next season.

There has been raised and consumed a good supply of early vegetables, such as potatoes, pease, beans, squashes, cucumbers, tomatoes, and every prospect of a winter supply of turnips, rutabagas, and cabbage, although much better crops would be realized if more fertilizers were used.

Aside from the vast amount of weekly mending done for the institution, there has been for the boys two suits each, for summer and winter clothes, overhauled, cleaned, and repaired.

In addition to this, there have been 290 new garments made, consisting of coats, pants, shirts, sheets, dresses—requiring 790 yards of material; 202 yards summer cloth for boys, 295 yards unbleached muslin, 51 yards gingham, 65 yards of toweling, 12 yards canton-flannel, 80 yards calico, 30 yards plaid for girls' dresses, 40 yards of drilling, 15 yards paper muslin; besides the smaller articles of pins, needles, buttons, &c.

Before concluding this report, we must again call attention to the building which we occupy; not only to its unsafe and dangerous condition—for it has seemed many times the past summer, during some of the high winds, as though the structure would tumble to the ground—but also to the lack of suitable play-rooms for the children in cold weather, a bath-room, and, also, other inconveniences the building presents for carrying on a work of this kind.

We are not unmindful of the great responsibility resting upon us, in the discharge of our duties of caring for the unfortunate children placed under our care, and we feel that possibly "we may have done some things we ought not to have done, and left undone some things we ought to have done"; still, what has been done has been conscientiously performed, in like manner as we would bring up our own children, and we must say we think there has been a very noticeable improvement in the behavior and condition of the children, and still hope, through the aid and assistance of Him who holds our destinies in his hand, to so conduct ourselves, by precept and example, that the little waifs whose characters are being molded by our example may see and learn that it is safer and better to lead honest and truthful lives than to take an opposite course.

Appended hereto will be found a list of the names of the children belonging to the home, with age and parentage of each.

L. BARNES, *Superintendent.*
R. BARNES, *Matron.*

The BOARD OF MANAGERS.

Name.	Age.	Parentage.	Name.	Age.	Parentage.
Charles Armstrong.....	12	Father.....	John Noakes.....	8	Mother.
Harry Brown.....	15	Mother.....	James Noakes.....	5	Do.
Andrew Berger.....	11	do.....	Willie Oswell.....	9	Father.
George Berger.....	6	do.....	Willie Reynolds.....	8	Mother.
John Carroll.....	14	do.....	Geo. Van Seiver.....	14	Orphan.
Thomas Carroll.....	9	do.....	George Wagner.....	12	Do.
John Clarke.....	13	do.....	Charles Wilson.....	10	Do.
Charles Carroll.....	7	Father and mother.	Isabella Acton.....	13	Father.
John Carroll.....	5	do.....	Jennie Brightwell.....	11	Mother.
Willie Conolly.....	10	do.....	Mary Brightwell.....	9	Do.
Frank Cook.....	12	Mother.....	Isabell J. Conelly.....	10	Do.
Willie Dooley.....	10	do.....	Mary Clarke.....	11	Do.
John Davis.....	10	Father.....	Georgiauna Eskridge.....	10	Do.
Leonard Davis.....	8	do.....	Alice Eskridge.....	8	Do.
Randolph Ellis.....	14	Mother.....	Annie Fitz Morris.....	15	Orphan.
Joseph Ellis.....	11	do.....	Carrie V. Hill.....	14	Father.
Harry Eskridge.....	10	do.....	Sarah A. Lord.....	9	Mother.
Arnold Grimes.....	13	do.....	Ida May Lord.....	5	Do.
Charles Gingle.....	10	do.....	Kate E. Maddox.....	7	Do.
William Gingle.....	9	do.....	Ellie C. Maddox.....	5	Do.
Walter Hill.....	12	Father.....	Mary Kollburner.....	8	Do.
William King.....	10	Orphan.....	Louisa Kollburner.....	6	Do.
William Kerney.....	12	Father and mother.	Jennie Oswell.....	.....	Father.
Edwin Kerney.....	10	do.....	Lillie Oswell.....	.....	Do.
Harry Kerney.....	9	do.....	Georgiauna Oswell.....	.....	Do.
Edward Frank Lord.....	4	Mother.....	Pauline Peters.....	.....	Mother.
Walter Mayhew.....	11	do.....			

* Deceased.

REPORT OF INDUSTRIAL HOME SCHOOL SHOP FROM OCTOBER 28, 1877, to OCTOBER 29, 1878.

Articles manufactured: Tree-boxes, 4,200; tree-stakes, 47,650; builders' brackets and medallions, 248; turning, wrung-frames, making tables, caning chairs, and all sorts of miscellaneous jobbing.

Tools on hand: One steam engine and boiler; one mortising-machine; one scroll-saw; one small scroll-saw; two turning-lathes; one tenoning machine; one power rip-saw; one molding-machine; five cutters; two work-benches; two grindstones, and an assortment of hand-tools.

Whole number of days' work done by boys, 1,260.

The boys have done admirably in the workshop, considering the great disadvantages we have to contend with and having so far to walk.

The machinery which Congress so kindly gave us is so worn out that it is inadequate to the demands on it. Were increased facilities offered us we would cheerfully instruct gratuitously a much larger class of children, such as might be recommended to us by the superintendent of public schools.

We would inform the citizens of Washington and Georgetown that we are prepared to execute work in our line at moderate prices, and that in extending to us their patronage they are not only encouraging the establishment of home manufactures, but also are rendering valuable support to a most deserving institution laboring in the interests of the poor.

A. REMY,
Superintendent of Shop.

TREASURER'S REPORT FOR THE YEAR ENDING OCTOBER 30, 1878.

Receipts.

Date.		Amount.
1877.		
Oct. 30	Cash on hand.....	\$9 71
Nov. 15	Tables manufactured.....	10 00
	Maintenance of paupers.....	97 65
	Tree-boxes and stakes.....	80 00
	Tree-stakes.....	160 00
Dec. 27	Maintenance for November.....	105 00
29	Tree-boxes and stakes.....	80 00
1878.		
Jan. 14	Maintenance for December.....	130 20
	Tables and mop-handles.....	24 00
	Christmas collections.....	19 35
Feb. 20	Maintenance for January.....	130 20
Mar. 9	Maintenance for February.....	117 60
23	Tree-boxes and stakes.....	355 00
	Bookshelves.....	13 00
	Donations, membership fees, &c.....	20 71
Apr. 5	Tree-boxes and stakes.....	630 20
May 1	Tree-boxes and stakes.....	510 00
10	Maintenance.....	126 00
27	Tree-boxes and stakes.....	255 00
June 8	Maintenance.....	130 20
29	Tree-stakes.....	80 00
	Maintenance.....	126 00
July 13	First installment of appropriation by Congress.....	3,000 00
Aug. 3	Maintenance.....	130 20
Oct. 22	Tree-boxes and stakes.....	625 00
	Maintenance.....	126 00
Total.....		7,091 02

Expenditures.

Number of voucher.	Date.		Amount.
1	Nov. 15, 1877	Four weeks' wages of foreman, ending November 17.....	\$48 00
12	Nov. 15, 1877	Shop rent.....	21 00
3	Nov. 16, 1877	Peter May, for bread.....	38 88
4	Nov. 16, 1877	Buckey & Co., groceries.....	29 95
5	Nov. 21, 1877	Thomas W. Smith, on lumber account.....	100 00
6	Dec. 29, 1877	B. Nordlinger, shoes.....	76 75
7	Dec. 29, 1877	Buckey & Co., groceries.....	50 00
8	Dec. 31, 1877	J. H. Newman, superintendent, salary matron and servant for October.....	39 66
9	Dec. 31, 1877	A. Remy, foreman, four weeks' wages.....	48 00
10	Dec. 31, 1877	J. H. Newman, salary, &c., for November.....	39 66
11	Dec. 31, 1877	Peter May, for bread.....	38 40
12	Jan. 14, 1878	.....do.....	43 68
13	Jan. 14, 1878	H. W. Burchell, tea.....	21 00
14	Jan. 15, 1878	J. H. Newman.....	99 32
15	Feb. 20, 1878	Coal for shop, J. Weissbrod.....	35 00
16	Feb. 20, 1878	Four weeks' wages of A. Remy, foreman.....	48 00
17	Feb. 20, 1878	Sundries.....	13 03
18	Feb. 21, 1878	D. B. Jackson, cow feed.....	14 77
19	Mar. 1, 1878	Buckey & Co., groceries.....	20 00
20	Mar. 9, 1878	John Wills, bread.....	35 84
21	Mar. 21, 1878	Buckey & Co., groceries.....	54 61
22	Mar. 23, 1878	A. Remy, foreman, eight weeks' wages.....	96 00
23	Mar. 23, 1878	Hire of servant and sundries.....	26 51
24	Mar. 23, 1878	Emma Freeman, service.....	8 00
25	Mar. 23, 1878	Thomas W. Smith, lumber.....	250 00
26	Apr. 5, 1878	Buckey & Marbury, hardware.....	20 00
27	Apr. 5, 1878	Mayfield & Heiston, fuel.....	100 00
28	Apr. 5, 1878	Joseph Weaver, for meat.....	100 00
29	Apr. 5, 1878	B. Nordlinger, shoes.....	75 00
30	Apr. 5, 1878	R. Brace, drugs and medicines.....	20 00
31	Apr. 5, 1878	D. B. Jackson, feed.....	11 70
32	Apr. 6, 1878	A. Remy, foreman, four weeks' wages.....	48 00
33	Apr. 6, 1878	Sundries, wood, plowing, &c.....	21 25
34	Apr. 6, 1878	S. T. Brown, dry goods.....	100 00
35	Apr. 6, 1878	George W. Moore, repairing wagon.....	10 00
36	Apr. 6, 1878	Buckey & Co., groceries.....	35 85
37	Apr. 6, 1878	John Wills, bread.....	38 96
38	Apr. 9, 1878	L. Barnes, superintendent, salary.....	25
39	Apr. 9, 1878	W. F. Seymour, caps.....	6 37
40	Apr. 18, 1878	J. L. Davis, rent for shop, two months.....	42 00

Expenditures—Continued.

Number of voucher.	Date.		Amount.
41	May 3, 1878	Thomas W. Smith, lumber.....	\$500 00
42	May 4, 1878	Robinson Bros., machinery repairs.....	20 00
43	May 10, 1878	L. Barnes, superintendent, salary, &c., and servant.....	33 00
44	May 13, 1878	John Wills, bread.....	36 00
45	May 16, 1878	D. B. Jackson, feed.....	13 06
46	May 17, 1878	A. Remy, four weeks' wages, at \$10.50.....	42 00
47	May 27, 1878	Buckey & Co., groceries.....	100 00
47	June 3, 1878	Thomas W. Smith, lumber.....	150 00
48	June 12, 1878	L. Barnes, superintendent, seamstress and servant.....	43 00
49	June 12, 1878	John Wills, bread.....	37 20
50	June 13, 1878	A. Remy, wages to June 1, four weeks.....	42 00
51	June 13, 1878	Flushing bits, \$9.10, and sundries.....	23 35
52	July 13, 1878	A. Remy, wages, four weeks.....	42 00
53	July 13, 1878	Sundries.....	10 18
54	July 15, 1878	John Wills, bread.....	38 40
55	July 15, 1878	L. Barnes, superintendent, laundry and seamstress.....	43 00
56	July 16, 1878	L. Moore, wagon cup bale.....	8 00
57	July 16, 1878	J. B. Wells, sewing-machine repairing.....	3 00
58	July 16, 1878	John H. Nock, crockery.....	7 25
59	July 16, 1878	J. W. Coon, paper-hanging.....	11 07
60	July 16, 1878	Railroad fare of boys sent to Virginia.....	5 46
61	July 16, 1878	William Jordan, repairing bedsteads.....	7 50
62	July 16, 1878	Insurance to December 1, 1878.....	12 50
63	July 16, 1878	F. D. Keyworth, groceries.....	20 30
64	July 16, 1878	William Reynolds, eleven weeks, &c.....	49 50
65	July 16, 1878	William Reynolds, six weeks.....	27 00
66	July 16, 1878	J. H. Newman, final settlement.....	83 78
67	July 16, 1878	William Reynolds, six weeks.....	27 00
68	July 16, 1878	P. May, bread.....	40 96
69	July 16, 1878	L. Barnes, superintendent and plowing.....	52 50
70	July 16, 1878	William Reynolds, six weeks.....	27 00
71	July 16, 1878	J. H. Chew, organ.....	39 00
72	July 16, 1878	William Reynolds, 9 weeks and clothing.....	52 00
73	July 16, 1878	Sundries for L. Barnes.....	29 00
74	July 16, 1878	William Reynolds.....	42 00
75	July 16, 1878	P. Heirs & Co., balance on lumber.....	100 00
76	July 16, 1878	William F. Seymour, hats.....	22 87
77	July 16, 1878	Buckey & Co., groceries (in final settlement to July 1).....	206 01
78	July 16, 1878	Mayfield & Hieston, fuel.....	104 00
79	July 16, 1878	Dr. Brace, drugs, paints, &c.....	12 67
80	July 16, 1878	W. Nordlinger, clothing (balance account).....	60 75
81	July 16, 1878	E. K. Lundy, fire-bricks.....	16 40
82	July 17, 1878	S. T. Brown, dry goods.....	282 74
83	July 17, 1878	Buckey & Marbury, hardware.....	53 16
84	July 17, 1878	Joseph Weaver, meat (to July 1).....	297 12
85	July 18, 1878	Menmell & Korff, stove, &c.....	32 62
86	July 18, 1878	Thomas W. Smith, balance on lumber.....	600 00
87	July 19, 1878	Dr. A. B. Shekell, medical attendance.....	10 00
88	July 19, 1878	Robinson & Bros., repairs to engine.....	29 75
89	July 19, 1878	F. L. Moore, seeds.....	11 57
90	July 20, 1878	B. Nordlinger.....	67 70
91	July 27, 1878	A. Remy, foreman, four weeks.....	42 00
92	July 30, 1878	Jas. L. Davis, shop-rent to July 1, 1878, eight months.....	108 00
93	Aug. 1, 1878	Robinson Bros., repairs.....	35 00
94	Aug. 3, 1878	Buckey & Co., groceries for July.....	62 28
95	Aug. 3, 1878	John Wills, bread for July.....	39 68
96	Aug. 7, 1878	L. Barnes, superintendent, salary, seamstress, and two laundresses.....	62 00
97	Sept. 9, 1878	L. Barnes, salary of superintendent, matron, &c.....	62 00
98	Sept. 10, 1878	A. Remy, on account of wages.....	20 00
99	Sept. 19, 1878	John Wills, bread for August.....	40 96
100	Oct. 2, 1878	Buckey & Marbury, hardware.....	51 05
101	Oct. 8, 1878	John Wills, bread for September.....	32 48
102	Oct. 23, 1878	Buckey & Co., groceries (August and September).....	130 10
103	Oct. 25, 1878	A. Remy, twelve weeks, to October 19, &c.....	128 10
104	Oct. 26, 1878	L. Barnes, salary of superintendent, matron, &c.....	62 00
105	Oct. 30, 1878	John Weissbrod, coal for shop.....	31 50
106	Oct. 30, 1878	W. W. Robinson, repair of boiler.....	19 27
107	Oct. 30, 1878	Joseph Weaver, meat to October 1.....	127 98
108	Oct. 30, 1878	John Wills, bread for October.....	34 72
109	Oct. 30, 1878	William Daw, one set cart-harness.....	13 00
Total expenditures.....			6,819 08
Cash on hand.....			271 94
Total.....			7,091 02

Respectfully submitted,

M. V. BUCKEY, Treasurer.

OFFICE OF THE CHIEF OF ENGINEERS,
Washington, D. C., October 21, 1878.

SIR: In compliance with the request contained in your letter of the 17th instant (No. 8814), addressed to Lieut. Col. T. L. Casey, Corps of Engineers, I beg to transmit herewith a letter from that officer, dated 18th instant, containing estimates for the bridges in his charge for the fiscal year ending June 30, 1879, and also estimates made for the Washington Aqueduct for the fiscal year ending June 30, 1879, and for the fiscal year ending June 30, 1880.

Very respectfully, your obedient servant,

H. G. WRIGHT,
Acting Chief of Engineers.

HON. S. L. PHELPS,
President Board of Commissioners of the District of Columbia.

OFFICE OF PUBLIC BUILDINGS AND GROUNDS,
AND WASHINGTON AQUEDUCT,
Washington, D. C., October 18, 1878.

GENERAL: I have the honor to inclose herewith a communication from the Commissioners of the District, dated October 17, 1878, and numbered by them 8814.

The estimates made for the bridges in my charge for the fiscal year ending June 30, 1879, were as follows: (See page 138, Book of Estimates.)

Care and repair of bridges:

Ordinary care of Benning's, Anacostia, and Chain bridges, including fuel, oil, lamps, matches, &c	\$1,200 00
Replanking Chain bridge	2,500 00
Extensive repairs to Benning's bridge	2,500 00
Raising embankments of Anacostia bridge and riprapping piers and abutments	3,000 00
Total	9,200 00

The amount appropriated by Congress for the fiscal year ending June 30, 1879, was as follows (see vol. 20, Statutes at Large, page 221): For care and repair of bridges, \$1,000.

The estimates made for the said bridges for the fiscal year ending June 30, 1880, were as follows:

Care and repair of bridges:

Ordinary care of Benning's, Anacostia, and Chain bridges, including fuel and oil	\$1,200
For replanking and painting Chain bridge	2,500
For repairs upon Benning's bridge and its causeways	2,500
For raising embankments of Anacostia bridge and riprapping piers and abutments	3,000
Total	9,200

The estimates made for the Washington Aqueduct for the fiscal year ending June 30, 1879, were as follows: (See Book of Estimates, page 139.)

Washington Aqueduct:

Engineering, maintenance, and general repairs	\$20,000
Commencing construction of the dam at Great Falls across the Virginia channel of the Potomac	50,000
Improving grounds around-gate keeper's dwelling at the receiving reservoir	1,000
Building wooden fence around the government land at the receiving reservoir	7,000

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Soiling, sodding, and seeding the embankment and excavation-slopes of the distributing reservoir.....	\$15,000
Building a wrought-iron truss-bridge over the waste channel of the receiving reservoir.....	11,000
Building an over-fall over the connecting conduit for the waste channel of the receiving reservoir.....	2,000
Continuing the macadamizing of the conduit road.....	10,000
Total	116,000

The appropriation made by Congress for the fiscal year ending June 30, 1879, was as follows (see Statutes at Large, vol. 20, page 222): Washington Aqueduct: For engineering, maintenance, and general repairs of the same, \$15,000.

The estimates made for the Washington Aqueduct for the fiscal year ending June 30, 1880, were as follows:

Washington Aqueduct:	\$24,000
For engineering, maintenance, and general repairs.....	
For commencing the construction of the dam at Great Falls across the Virginia channel of the Potomac.....	50,000
For improving grounds around gate-keeper's dwelling at the receiving-reservoir.....	1,000
For building wooden fence around the government land at the receiving-reservoir.....	7,000
For soiling, sodding, and grading the embankment, and excavating slopes of the distributing-reservoir and conduit.....	15,000
For building a wrought-iron truss-bridge over the waste-channel of the receiving-reservoir.....	11,000
For building an overfall over the connecting conduit for the waste-channel of the receiving reservoir.....	2,000
For continuing the macadamizing of the conduit road.....	10,000
Total	116,000

Very respectfully, your obedient servant,

THOS. LINCOLN CASEY,

Lieutenant-Colonel of Engineers, U. S. A.

Lt. Col. H. G. WRIGHT,

Brevet Major-General, Acting Chief of Engineers.

REPORT OF OPERATIONS OF THE ENGINEER DEPARTMENT.

UNDER THE DIRECTION OF MAJ. W. J. TWINING, CORPS OF ENGINEERS, U. S. A.,
COMMISSIONER OF THE DISTRICT OF COLUMBIA.

ENGINEER DEPARTMENT,

DISTRICT OF COLUMBIA,

Washington, November 15, 1878.

MAJOR: I have the honor to submit herewith a report, with accompanying tables, of the work done by the engineer department since the date of the last annual report of the Commissioners of the District of Columbia.

The tables are divided to include in the first set the conclusion of the work of the former Commission, and in the second, the work of the engineer department as organized under your direction July 1, 1878.

Very little new work has been undertaken, the cost of the substitution of stone blocks and asphaltum for the worn-out wood pavements constituting the great bulk of the expenditure.

This has been effected at a notable reduction in the price and considerable improvement in the quality of the work. The specifications for these pavements are appended herewith and have been rigidly enforced. Some danger appeared to threaten them in the outset from the claims of patentees and owners of patent-rights, but these have been successfully defied, and the days of patent pavements are numbered if the experience of the District of Columbia be repeated elsewhere. In respect to the asphaltum pavements it is only necessary to say that the class of pavement which has been held tenaciously at \$3.78 to \$4.75 per square yard for several years is now laid at \$1.75 per square yard in the best manner and of the very best material, with a fair margin of profit to the contractor. A further economy may be effected in this class of work, and facility and certainty of proper maintenance by repairs, if taken in hand by the District government and withheld from contract.

I venture to renew the recommendation of my last annual report as engineer of the District of Columbia of 1877, premising that the appointment of a competent expert has already been made by you, and has been largely instrumental in breaking the power of the combinations of contractors. (See Appendix SS.)

"For want of proper care these pavements are rapidly deteriorating, and should it be found impossible to provide the means of maintaining them in proper condition, it will be necessary to return to stone. The greater part of these pavements can be advantageously covered with a much better quality of wearing-surface than that of the original pavement, and the subsequent cost of maintenance may be somewhat reduced. The bituminous, monolithic pavements are a luxury, however, and must be kept in good order at the price of a luxury, or abandoned for something more durable. I have heretofore recommended that the District assume the work of putting down these pavements and keeping them in repair, without resort to contract, employing skilled labor and purchasing the necessary material. I renew this recommendation, and am satisfied that the system would be found more economical and satisfactory in every respect than the contract work, with its multiplicity of patents, meaning nothing and describing everything except the pavements laid under them. It will be necessary to employ a thoroughly competent expert to superintend this work and to purchase suitable machinery."

Summary statement of operations and estimates.

Number.	Description.	Expenditures.			Estimates for remaining year (1879 and 1880).	Remarks.
		From November 30, 1877, to June 30, 1878.	From June 30, 1878, to October 1, 1878.	Total for eleven months ending September 30, 1878.		
1	Work of improvement and repair under contract (see Tables Nos. 1, 2, and 6, and Appendix S 8).	\$19,852 44	\$1,924 70	\$21,777 14	\$53,098 96	\$28,098.96, under contract to Oct. 1, 1878.
2	Work of improvement under orders, authorized by the Commissioners of the District of Columbia (see Table No. 4 and Appendix S 8).	4,798 95		4,798 95	533,000 00	\$123,000, under contract to Oct. 1, 1878.
3	Replacement of wooden pavements (see Table No. 3 and Appendix S 8).	4,588 66	12,896 41	4,588 66	18,500 00	
4	Replacement of concrete pavements (see Table No. 4 and Appendix S 8).	29,668 00	12,896 41	42,655 31	15,000 00	
5	Engineer's department, salaries.	2,013 12	1,284 46	3,897 58	10,000 00	
6	Contingent expenses.	62,624 22	25,566 78	88,191 00	96,500 00	
7	Water department, all expenses (see Appendix S 2).	5,638 49	4,361 97	9,400 46	15,000 00	
8	Parking commission, all expenses (see Appendix S 4).	90,816 18	29,835 90	120,652 08	133,000 00	
9	Gas, Georgetown, for streets and public buildings (see Appendix S 6).	11,312 88	3,468 28	14,778 66	10,000 00	
10	Current work of repair in Washington (see Appendix S 5).	37,362 40	17,124 87	54,490 85	40,000 00	
11	Construction of material for permit-work.	14,013 61	10,107 80	19,972 22	15,000 00	
12	Sweeping streets and avenues (see Appendix S 8).	22,525 00	3,250 92	13,274 53	8,000 00	\$19,425, under contract.
13	Cleaning alleys (see Appendix S 8).	5,437 39	1,600 00	31,300 00	24,975 00	{ Of which \$31,210.70 would be charge- able to the filling of streets in Tiber Valley from the surplus excavation.
14	{ Additional auxiliary main sewers, and repair of Tiber sewer, and } { overflow of same }			5,034 30	3,800 00	
	Total	256,891 45	87,798 29	342,886 74	876,112 00	2,773,496 69

Under contract to October 1, 1878, \$173,123.96.

* These expenditures and estimates not included in footings, being charged to special water fund.

If the estimate of the surveyor be approved there will be required additional amounts as follows for eighteen months ending June 30, 1880:

For surveyor's office, proper.....	\$13,245
For establishing corner-stones of squares, and intermediate stones on the District line.....	6,000
For surveys in Georgetown.....	5,000
Total.....	24,245

Summary statement of the various District markets.

Markets.	Revenues from November 7, 1877, to June 30, 1878.	Expenditures from November 1, 1877, to June 30, 1878.	Revenues from June 30, 1878, to October 1, 1878.	Expenditures from June 30, 1878, to October 1, 1878.	Total revenues.	Total expenditures.
Northern market.....	\$1,217 00	\$1,503 60	\$1,587 88	\$561 60	\$5,804 88	\$2,064 00
Eastern and Northwestern market.....	2,121 37	1,390 00	841 16	526 50	2,962 53	1,916 50
Western market.....	3,624 00	1,200 00	1,137 52	375 00	4,761 52	1,575 00
Georgetown market.....	1,127 96	933 28	382 56	324 78	1,510 52	1,285 06
Total.....	12,090 33	5,026 88	3,949 12	1,787 88	14,039 45	6,841 16

ASSESSMENTS FOR SPECIAL IMPROVEMENTS.

There was passed at the last session of Congress the following act :

AN ACT to provide for the revision and correction of assessments for special improvements in the District of Columbia, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Commissioners of the District of Columbia be, and they are hereby, directed to enforce the collection, according to existing laws, of all assessments for special improvements prepared under an act of the legislative assembly of August tenth, eighteen hundred and seventy-one, as charges upon the property benefited by the improvements in respect to which said assessments were made : *Provided,* That upon complaint being made to the Commissioners, within thirty days from the passage of this act, of erroneous or excessive charges in respect to any of said assessments which remain unpaid, said Commissioners are hereby authorized to revise such assessments so complained of, and to correct the same ; and where certificates of assessment have been issued, they shall issue to the holder of such certificate a drawback-certificate for the amount of such erroneous or excessive charges, which certificates shall be received at any time in payment of assessments for special improvements, and they shall be redeemed in the manner prescribed for the redemption and purchase of certificates, as provided by an act of the legislative assembly of May twenty-ninth, eighteen hundred and seventy-three, entitled "An act for extending the time of payment of special assessments, and for other purposes," after the provision for the purchase and redemption of certificates named in said act shall have been fully carried out.

Approved, June 19, 1878.

A liberal construction of this law has extended its benefits to all special assessments, whether made by the board of public works or the Commissioners of the District of Columbia, and including the assessments for work completed by the board of public works under contracts made by their predecessors, the corporation government..

At present, the only classes of persons deriving any advantage from this law are the holders of lien-certificates upon property which has not paid the tax and the owners of this property, the latter having the right to redeem the lien-certificates by the payment of the tax, less the drawback, with interest.

The revision of assessments has been made to include all classes, and the additional drawback-certificates can be issued whenever authorized.

The rules adopted by the Commissioners to govern this revision are given herewith, and their application thus far is shown by the following statement :

Table showing revised assessment of streets in the District of Columbia.

[* Those assessments marked with an asterisk (*) are increased. Balance decreased.]

Number.	Date.	By whom assessed.	Street or avenue.	From—	To—	Amount of original assessment.	Amount of revised assessment.	Difference.
1	1874.	Commissioners.	C street north	Second street west	Fourth-and-a-half street west	\$7,552 54	\$5,300 02	\$2,252 52
2	Oct. 9	do	I street north	Third-and-a-half street west	Fifteenth street west	8,044 16	8,124 11	79 95
3	Oct. 10	do	Riggs street	Fourth street west	Fourth-and-a-half street west	1,502 20	1,123 46	378 74
4	Oct. 12	do	Fourteenth street west	F street north	Fourth-and-a-half street west	6,885 36	4,985 63	1,899 73
5	Dec. 9	do	N street north	Fifth street west	Sixth street west	45,317 45	32,835 63	12,481 82
6	Dec. 27	do	Eleventh street east	Pennsylvania avenue	Branch Branch	13,970 52	13,255 50	715 02
7	Dec. 30	do	Maine avenue.	Third street west	Fourth street west	3,691 23	2,459 21	1,232 02
8	1875.	do	Thirteenth-and-a-half street west	Pennsylvania avenue	B street north	6,292 21	4,506 28	1,785 93
9	Jan. 2	do	Eleventh street west	do	do	5,165 70	4,565 70	599 00
10	Jan. 5	do	Fourth street west	do	F street north	5,076 34	2,721 97	2,354 37
11	Jan. 8	do	Fourth street west	Fifth street west	Seventh street west	10,476 05	6,397 06	4,078 99
12	Jan. 8	do	Fourth street west	Fourth-and-a-half street circle	Thirteenth and F street circle	11,379 21	10,012 69	1,366 52
13	Jan. 8	do	D street north	Eleventh street west	Fifteenth street west	9,842 21	8,713 92	1,128 29
14	Jan. 27	do	F street north	Seventh street west	Water street	6,137 88	4,196 89	1,940 99
15	Jan. 27	do	H street north	Fourth street west	C street north	9,012 58	6,076 20	2,936 38
16	Feb. 6	do	Delaware avenue	Fourth street west	First street east	17,705 93	13,154 01	4,551 92
17	Feb. 6	do	Twenty-sixth street west	K street north	M street north	6,683 37	6,257 35	426 02
18	Feb. 6	do	Columbia street	O street north	do	9,028 52	10,348 92	1,320 40
19	Feb. 6	do	Second street east	North Carolina avenue	Seventh street east	3,344 59	2,879 53	465 06
20	Mar. 6	do	South Carolina avenue.	Sixth street east	Sixteenth street west	3,446 17	2,508 21	937 96
21	Mar. 11	do	S street north	Fourteenth street west	Fourteenth street west	2,739 15	1,926 26	812 89
22	Mar. 11	do	H street north	Fifteenth street east	Vermont avenue	2,075 73	1,539 98	535 75
23	Mar. 11	do	C street south	Third street east	Fourth street east	2,591 27	2,100 52	490 75
24	Mar. 20	do	do	Sixth street east	Seventh street east	7,711 12	7,181 35	529 77
25	Mar. 20	do	N street south	Sixth street west	James Creek canal.	3,936 13	3,817 54	118 59
26	Mar. 22	do	B street north	Delaware avenue	First street east	3,189 87	3,372 89	183 02
27	Mar. 25	do	F street north	M street south	O street south	42,738 82	25,723 94	17,014 88
28	Apr. 8	do	F street north	Fifth street west	Thirteenth street west	2,184 47	2,057 21	127 26
29	Apr. 29	do	Maryland avenue	First street west	Fourth street west	4,265 29	4,255 25	4 04
30	Apr. 29	do	Corcoran street	Thirteenth street west	Potomac street.	3,636 83	2,981 45	655 38
31	Apr. 27	do	Cracked street (Georgetown)	High street	Third street	4,086 53	4,920 55	834 02
32	May 4	do	Cracked street (Georgetown)	High street	Marked street	5,177 82	4,977 82	200 00
33	May 8	do	Prospect street (Georgetown)	High street	Fayette street	17,260 96	16,043 13	1,217 83
34	May 20	do	P street north	New Jersey avenue	Rock Creek	74,364 13	53,112 08	21,252 05
35	May 22	do	Q street north	Pennsylvania avenue	Sixteenth street west	12,027 36	9,697 84	2,329 52
36	June 1	do	Sixth street west	Thirteenth street west	G street north	13,553 67	8,208 66	5,345 01
37	June 1	do	Fourth-and-a-half street west	Fourth-and-a-half street west	Seventh street west	1,017 20	1,155 46	138 26
38	July 15	do	F street south	Fourth-and-a-half street west	Seventh street west	9,168 04	7,357 22	1,810 82

44	July 15	do	Sixth street west	New York avenue	Boundary	43,890 09	24,543 12	9,305 67
45	July 16	do	H street north	First street east	Fifteenth street east	26,338 12	16,007 11	10,331 01
46	Aug. 4	do	A street north	do	Second street east	42,515 23	2,104 40	10,212 93
47	Aug. 5	do	Seventh street west	B street north	G street north	50,778 20	40,773 36	23,854 90
48	Aug. 31	do	Fifth street south	G street north	Water street	26,884 30	3,029 60	3,025 19
49	Aug. 31	do	Potomac (Georgetown)	Fourth and a-half street west	Water street	22,201 43	19,106 24	3,025 19
50	Aug. 31	do	Congress (Georgetown)	Bridge	West street	6,780 97	3,298 29	1,482 68
51	Aug. 31	do	do	do	West street	13,000 99	7,636 52	3,364 47
52	Sept. 2	do	Washington (Georgetown)	do	do	7,094 16	5,982 30	1,111 86
53	Sept. 2	do	Grant street	Ninth street west	Standard street	2,160 35	2,160 35	
54	Dec. 6	do	do	do	Tenth street west			
55	1876.	do	Maryland avenue	Third street west	Seventh street west	18,162 46	13,520 53	4,641 93
56	Sept. 8	do	do	Seventh street west	River	28,286 40	25,922 82	2,363 58
57	Sept. 12	do	Eleventh street west	R street north	Boundary	9,024 82	5,024 11	4,000 71
58	Sept. 13	do	Twenty-first street west	E street north	Q street north	42,636 09	27,885 63	14,750 46
59	Oct. 2	do	First street east	C street south	Q street north	23,260 13	14,722 47	8,537 66
60	Oct. 2	do	O street north	Fifteenth street west	Seventeenth street west	8,782 52	7,471 87	1,310 65
61	Oct. 4	do	do	K street north	Boundary	61,057 12	28,841 15	32,215 97
62	Oct. 5	do	Fifteenth street west	M street north	New Hampshire avenue	35,714 18	25,173 97	10,540 21
63	Oct. 13	do	Fourth street west	Fourth street west	Maryland street	9,282 21	6,428 65	2,853 56
64	Oct. 21	do	N street north	Scott's statue	Twenty-first street west	23,357 56	11,013 71	12,343 85
65	Oct. 21	do	Twentieth street west	R street north	Boundary	2,021 16	1,092 39	88 77
66	Nov. 6	do	I street north	Fifth street west	Eighth street west	8,303 65	3,945 13	4,358 52
67	Jan. 15	do	R street north	Ninth street west	Fourteenth street west	10,782 64	11,546 13	5,236 51
68	Feb. 26	do	First street west	Maryland avenue	X street south	16,419 41	14,578 29	1,841 12
69	Apr. 3	do	Concan street	Fourth street west	Sixteenth street west	3,216 42	4,254 49	1,037 93
70	Apr. 10	do	Q street north	Sixteenth street west	Boundary	6,763 42	3,716 05	3,047 37
71	June 12	do	Connecticut avenue	H street north	do	19,008 07	3,028 34	16,579 73
72	1877.	do	Twelfth street west	Pennsylvania avenue	F street north	972,640 36	700,600 04	1272,047 32
73	1	Ang.	do	do	do	5,810 79	4,805 32	945 47
74	2	do	Eleventh street west	do	do	8,753 93	7,322 94	1,430 99
75	3	do	Seventh street west	B street south	Potomac River	49,113 04	32,288 01	16,825 03
76	4	do	Fourth street west	H street north	N street north	22,030 44	17,331 44	4,699 00
77	5	do	Seventh street west	Ninth street west	Fifteenth street west	35,811 08	22,659 85	13,151 23
78	6	do	Vermont avenue	K street north	Fourteenth street Circle	13,577 53	11,687 93	1,889 60
79	7	Sept.	M street north	New York avenue	do	31,273 32	33,805 41	*2,532 09
80	8	do	Fifteenth and-a-half streets west	Eleventh street west	Thirtieth street west	4,801 92	5,033 05	*141 13
81	9	do	do	Pennsylvania avenue	H street north	3,037 96	3,820 85	*782 89
82	10	do	Alley	Square 221	No revision			
83	11	do	Market space	Seventh street west	Ninth street west	1,604 61	1,610 36	84 25
84	12	do	Assessments decreased	do	do	\$273,739 25	\$273,739 25	
85	13	do	Assessments increased	do	do	1,711 93	1,711 93	

Not difference
 Deductions from actual difference in revisions includes "old material" unpaid by board of audit, "permit work," "triangular shape," and 4 feet of carriage-way required of street railroads.

272,047 32

Table showing revised assessment of streets in the District of Columbia—Continued.

Number.	Date.	By whom assessed.	Street or avenue.	From—	To—	Amount of original assessment.	Amount of revised assessment.	Difference.
12	1872. Sept	Board of public works.	Pennsylvania avenue	Fifteenth street west	Rock Creek	\$29,263 08	\$29,013 90	\$24,840 82
13	do	do	Fourth street west	Indiana avenue	New York avenue	18,243 63	18,927 19	684 16
14	do	do	H street north	Thirteenth street west	Fourteenth street west	3,886 77	4,610 38	723 61
15	do	do	D street north	Sixth street west	Fifteenth street west	11,811 08	13,457 58	1,646 50
16	do	do	Twelfth street west	Pennsylvania avenue	Potomac River	22,353 08	21,469 72	1,065 71
17	do	do	Indiana avenue	Indiana avenue	New York avenue	29,950 52	29,950 52	0
18	do	do	Pennsylvania avenue	Pennsylvania avenue	M street north	28,712 68	29,472 23	759 55
19	do	do	Ninth street west	do	Canal	8,900 23	8,849 82	50 40
20	do	do	Louisiana avenue	Ninth street west	Twelfth street west	30,808 31	21,038 62	9,839 69
21	Nov	do	G street north	do	Twentieth second street west	36,442 30	28,252 43	8,189 87
22	do	do	F street north	do	do	7,798 96	10,747 76	2,948 80
23	do	do	Fifteenth street west	do	Seventeenth street west	12,604 87	11,875 78	729 09
24	do	do	do	Fifteenth street west	K street north	86,245 42	71,416 68	14,828 74
25	do	do	Sixteenth street west	H street north	N street north	58,194 17	36,511 48	21,682 69
26	do	do	do	N street north	Boundary street east	24,171 23	19,472 70	4,698 53
27	do	do	East Capitol street	First street east	N street north	9,300 50	8,281 84	1,018 66
28	do	do	Seventeenth street west	New York avenue	Twelfth street west	25,980 88	23,777 82	2,203 06
29	do	do	Water street	do	Fifteenth street west	36,337 17	31,856 96	4,480 21
30	do	do	G street north	F street	N street	53,694 29	7,584 59	46,109 70
31	do	do	Thirteenth street west	Pennsylvania avenue	Canal	61,278 88	53,694 29	7,584 59
32	Dec	do	Four-and-a-half street west	Maine avenue	P street Canal	20,029 89	14,926 17	5,103 42
33	1873. Jan	do	M street north	New Hampshire avenue	Rock Creek	8,650 25	6,013 25	2,636 00
34	do	do	G street north	Eighteenth street west	Twentieth street west	24,250 89	18,913 32	5,336 57
35	do	do	E street north	New 5th street west	Seventh street west	14,253 90	17,007 39	1,846 61
36	do	do	E street north	Seventh street west	Thirteenth street west	43,300 11	40,005 70	3,294 44
37	do	do	Twelfth street west	F street north	P street north	20,441 27	17,927 09	2,514 18
38	Feb	do	H street north	Seventh street west	Thirteenth street west	9,295 18	9,861 91	566 73
39	do	do	Eight street west	C street north	F street north	23,638 08	18,768 96	4,869 12
40	do	do	Connecticut avenue	H street north	Boundary street	78,689 00	71,715 39	6,953 61
41	do	do	K street north	Seventh street west	Twenty-third street west	153,629 45	84,971 61	68,657 84
42	Sept	do	Massachusetts avenue	New Jersey avenue	Boundary street	1,140,881 44	390,334 14	750,547 30
43	Oct	do	do	do	do	1,140,881 44	390,334 14	750,547 30

† Railroad deducted.

‡ Assessments decreased.

§ Assessments increased.

Net decrease.

REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 247

Table showing revised assessment of squares in the District of Columbia.

No.	Date.	By whom assessed.	Squares.	Amount of original assessment.	Amount of revised assessment.	Difference.
1	Aug. 1, 1871	H. D. Cooke, governor	21, 20, 18, 17, 39	\$4, 798 44	\$1, 509 48	\$3, 198 96
2	Aug. 1, 1871	do	139, 161, 110, 42, 44	7, 372 66	2, 457 55	4, 915 11
3	Aug. 2, 1871	do	110, 92, 154	3, 244 42	1, 081 47	2, 162 95
4	Nov. 17, 1871	do	No. of 177, 176, 123	3, 107 59	1, 035 86	2, 071 73
5	Aug. 2, 1871	H. D. Cooke, governor	177, 152, 153, 133	4, 873 33	1, 624 74	3, 248 89
6	Aug. 1, 1871	do	203, 204, 205, 206, 207, 208	7, 478 26	2, 492 75	4, 985 51
7	Aug. 1, 1871	do	208, 209, 210	3, 500 34	1, 166 78	2, 333 56
8	Dec. 4, 1871	do	360, 334, 308, no. of 278, 361, no. of 242	5, 622 49	1, 874 16	3, 748 33
9	July 29, 1871	do	286, 317, 344, 403, 404, 428, 453	1, 580 71	526 90	1, 053 81
10	Oct. 6, 1871	Edwin L. Stanton, acting governor.	557, 619	4, 078 35	1, 359 45	2, 718 90
11	Nov. 3, 1871	do	620, 557, 621	7, 056 04	2, 352 01	4, 704 03
12	Sept. 25, 1871	E. L. Stanton, acting governor.	622, 621, 620, 619	5, 365 69	1, 788 56	3, 577 13
13	Oct. 6, 1871	do	673, 620, 672	4, 932 37	1, 644 12	3, 288 25
14	Oct. 6, 1871	do	621, 620	3, 853 94	1, 284 65	2, 569 29
15	Dec. 23, 1871	H. D. Cooke, governor	634	1, 221 50	407 17	814 33
16	Sept. 13, 1871	do	675, 676	1, 816 85	605 62	1, 211 23
17	Nov. 23, 1871	do	815, 839, 690	1, 305 33	435 11	870 22
18	Jan. 12, 1872	do	743, no. of 743, 740, 738, 701, 699	6, 630 95	2, 210 32	4, 420 63
19	Aug. 3, 1871	do	715, 713, 714, 716, 750	5, 090 20	1, 696 73	3, 393 47
20	Aug. 2, 1871	do	749, 748	2, 815 18	938 39	1, 876 79
21	Nov. 22, 1871	do	941	812 54	270 85	541 69
22	Aug. 3, 1871	do	1089, 1100, N. E. of 1113, 1112, 1088, N. of 1017, S. of 1015	5, 641 34	1, 880 45	3, 760 89
23	Aug. 3, 1871	do	1017	1, 270 61	423 54	847 07
24	Oct. 30, 1871	E. L. Stanton, acting governor.	1041, S. of 1039, 1061, 1074, 1073, 1060, 1039, 1040	8, 578 65	2, 839 55	5, 719 10
25	Aug. 1, 1871	H. D. Cooke, governor	210, 211, 312, N. of 337, 337, 310, 364, 311, 279	8, 628 35	2, 876 12	5, 752 23
26	Aug. 1, 1871	do	336	1, 119 90	373 33	746 66
27	Dec. 16, 1871	do	S. of 395, 396, N. of 420, 420	2, 694 23	898 08	1, 796 15
28	Aug. 7, 1871	do	74, 75	1, 916 92	638 97	1, 277 95
29	Aug. 2, 1871	do	775, 807, 831, 806, 774, 749	5, 204 58	1, 734 86	3, 469 72
30	July 28, 1871	do	179, 178	3, 998 25	1, 332 75	2, 665 50
31	July 28, 1871	do	177, 176, 175, 150, 149, S. of 188, 189, N. of 189, 188	8, 052 69	2, 684 23	5, 368 46
32	July 28, 1871	do	174	1, 451 10	483 70	967 40
33	Aug. 3, 1871	do	N. of 189, 189, 190, 191, 192, 193, 194	6, 022 68	2, 007 56	4, 015 12
34	Aug. 3, 1871	do	194, S. of 195, N. of 196, 196	1, 972 82	657 61	1, 315 21
35	May 4, 1871	do	223, 224, 225	5, 795 38	1, 931 79	3, 863 59
36	June 30, 1871	do	347, 348	1, 419 58	473 19	946 39
37	July 29, 1871	do	344, 317, 285	3, 516 05	1, 172 02	2, 344 03
38	Aug. 2, 1871	do	286	1, 625 54	541 85	1, 083 69
39	Aug. 2, 1871	do	209	1, 612 41	537 47	1, 074 94
40	July 29, 1871	do	303, 272, 273, 235, 203, 204, 440, 475	7, 900 22	2, 633 41	5, 266 81
41	May 4, 1872	do	224, 225	1, 532 68	510 89	1, 021 79
42	Aug. 6, 1871	do	281	1, 617 94	539 31	1, 078 63
43	June 30, 1871	do	377, 378, 379	1, 017 62	339 21	678 41
44	July 29, 1871	do	427, 428, 403, 404	3, 744 88	1, 248 29	2, 496 59
45	June 30, 1871	do	377, 378, 379	269 44	89 81	179 63
46	do	do	405, 429	1, 176 24	392 08	784 16
47	July 27, 1871	do	776	1, 528 81	509 60	1, 019 21
48	July 12, 1871	do	776, 832, 858, 889, 808	4, 108 72	1, 369 57	2, 739 15
49	July 29, 1871	do	452, 453	4, 506 66	1, 502 22	3, 004 44
50	Oct. 6, 1871	do	634, 685	3, 230 38	1, 076 79	2, 153 59
51	Aug. 31, 1871	do	694	1, 764 84	588 28	1, 176 56
52	Apr. 10, 1872	do	696, N. of 699, 703	2, 742 70	914 23	1, 828 47
53	Aug. 3, 1871	do	946, 947, 974, 969, 968	4, 231 30	1, 410 43	2, 820 87
54	Aug. 3, 1871	do	973, 972, 971, 970, 967, 943, 942	4, 959 28	1, 653 09	3, 306 19
55	Aug. 5, 1871	do	467	1, 027 27	342 42	684 85
56	Aug. 5, 1871	do	498	903 64	301 21	602 43
57	Aug. 5, 1871	do	411	755 39	251 80	503 59
58	Aug. 5, 1871	do	469	1, 323 73	441 24	882 49
59	Nov. 25, 1871	do	582	1, 278 31	426 10	852 21
60	Nov. 25, 1871	do	468	1, 621 58	540 53	1, 081 05
61	Nov. 25, 1871	do	497	1, 763 82	587 94	1, 175 88
62	Aug. 14, 1871	do	S. of 415, 415, 414, 467	2, 822 86	940 95	1, 881 91
63	Aug. 12, 1871	do	587, 588, res. C, 351, no. of 351, 593, 649	6, 090 64	2, 030 21	4, 060 43
64	Aug. 12, 1871	do	412, 472, 544, 594	4, 822 68	1, 607 56	3, 215 12
65	Aug. 7, 1871	do	1, 5, 25	2, 602 08	887 36	1, 714 72
66	Aug. 7, 1871	do	26, 38, 52, 53, 54	2, 068 54	689 51	1, 379 03
67	Aug. 7, 1871	do	78, 168, 169	2, 215 88	738 63	1, 477 25
71	Aug. 14, 1871	do	326, 327, 328, 299, 300, 353	5, 976 55	1, 992 18	3, 984 37
				236, 743 03	78, 914 29	157, 828 74

RULES FOR THE REVISION OF SPECIAL ASSESSMENTS.

ENGINEER DEPARTMENT, DISTRICT OF COLUMBIA,
Washington, D. C., July 19, 1878.

By direction of the Board of Commissioners of the District of Columbia, the following rules will be applied to the revision of assessments for special improvements:

First. The rules and methods of the late board of public works, as followed by them under the act of the legislative assembly, approved August 10, 1871, and in conformity with the act of Congress, approved February 21, 1871, will be followed, except as hereinafter modified, viz:

Second. Where the board of public works executed contracts for street improvements, entered into by the late corporate government of Washington, and assessed the whole cost of the work upon property along the line of improvement, the assessment shall be reduced and the charges upon private property made to conform to the requirements of the thirty-seventh section of the organic act, approved February 21, 1871.

Third. In the revision of assessments for special improvements all clerical errors, of whatever nature, whether in the vouchers or in the computation based thereon, and which affect the amount or rate of assessment, will be corrected. This includes the deduction of the cost of two feet of grading required under the various wood and concrete pavements to be included in the cost of the pavement, unless such deduction has already been made in the settlement with the contractors.

Fourth. Assessments shall not be made more than once for the same improvement, and all items of expense incurred on account of doing work a second time shall be struck out, so that the basis of the assessment shall be only such work as was necessarily and properly done in completing the improvement for which the assessment was made. This includes the rejection of all items for lowering water mains on account of change of grade, where the original cost of laying the mains has been assessed once. It includes the rejection of the cost of all work in the nature of repair, which is not properly new work. Also, the cost of resetting curb, relaying pavement, &c., which may have occurred during the progress of the work of improvement on account of any modification of plan or any error in laying out or executing the work; also, all cost of redressing or rejoining curb or other material which has been paid for at full board rates, and recognizes the obligation of the District to continue the work of replacing the decayed wood pavements, as heretofore, without additional assessment for the same.

Fifth. So far as is practicable, the assessment shall be made only for that work by which the property assessed is *directly* benefited, so that each property-owner shall be taxed only for improvements adjacent to his property, and by which he is immediately benefited. This requires the deduction from the general assessment of all charges for steps, lowering of vaults, underpinning of houses, and work of a similar character, and its assessment, like water and sewer services, against the property for the benefit of which the work was done. It requires that expenditures for improvements adjacent to property which is exempted by law from assessment, such as church property, shall be excluded from the statement of expenditures for assessment.

Sixth. Where the actual cost of the work of improvement varies greatly at different points of the line, whereas the benefit derived by each property-owner is substantially the same, an equalization of the assessment will be made, so far as practicable, as follows: In the case of sewers, where the size, and consequently the cost, increases contin-

nously in the direction of the outlet in proportion to the increase of the area drained, while the uniform benefit on the line of the sewer is substantially the same in each case, so much only of the cost of the sewer will be assessed as would have been required to construct a 15-inch pipe sewer. This cost will be distributed *pro rata* upon the line of property adjacent to the sewer and benefited by it.

In the case of heavy grading or of long haul, or both, which may have been assessed between arbitrary limits along the line of improvement, the amount of grading to be assessed will be reduced to an average of two feet in depth for the entire width of the street or avenue between the building lines, with such reasonable haul as may have been necessary to reach the nearest suitable place of deposit, and the cost of grading so determined will be assessed *pro rata* against the property adjacent to which the work was done. Where material excavated upon one street or avenue is hauled to another, for the purpose of filling the latter to grade, one-half of the cost of such grading and haul will be deducted from the former and charged to the latter within the limits between which it was used, subject, however, to the limitation hereinbefore made as to the maximum cost of grading and haul to be assessed in any case.

Seventh. Drawbacks or rebates will be allowed on account of work done by private parties under permits from the late board of public works, pursuant to the order of that board, dated November 7, 1873, and also on account of old material appropriated by the district. When the claims in either case have been acted upon by the board of audit, in accordance with the act of Congress approved June 20, 1874, and accepted by the parties interested, the decision of that board shall be held to be final and conclusive. When these claims have not been acted upon by the board of audit, drawbacks will be allowed as follows: In case of permit work, strictly in accordance with the contract expressed or implied by the terms of the permit; in the case of claims for old material, they will be allowed at the rates established by the Commissioners, as follows, viz:

PRICE OF OLD MATERIAL.

	Cents.
Brick pavement, per square yard.....	38½
Curb, 5-inch and under, per linear foot.....	40
Curb, 6-inch, per linear foot.....	50
Cobble-stone, per square yard.....	15
Blue rock pavement, per square yard.....	50
Belgian block pavement, per square yard.....	75

Or at such higher rates as may have been realized by the District in disposing of the old material.

Eighth. Special exemptions from the application of the general rules of assessment will be made as follows, viz:

In the case of corner lots assessed for a sewer on the shorter side, 75 feet of the longer side will be exempted from sewer assessment.

Whenever the intersection of streets or avenues produces lots having acute angles or excessive frontage in proportion to the area available for building purposes, a deduction from the uniform rate of assessment will be allowed, upon presentation by the property-owner of a plat of the subdivision into lots of the tract in question, attested by the surveyor of the District of Columbia, as being of record in his office, and accompanied by the affidavit of the owner of the property that said subdivision is designed by him to be permanent. Each case of this kind will be separately acted upon by the Commissioners, and will be decided in conformity with the principle that the rate of special assessment should be made, as uniformly as practicable, in proportion to the benefit derived from the improvement.

Ninth. In conformity with the opinion of the attorney of the District of Columbia, street railway companies will be assessed for their proportional part of special improvements in accordance with the following principles, viz:

1st. If the improvement was made before the company was incorporated, there can be no liability on the part of the company, except to restore the street to as good condition after their tracks are completed as it was before.

2d. If the improvement was made after the act of incorporation was passed but before the company was formed and the charter accepted, no liability would attach to the company other than above stated.

3d. If the improvement was made after the company had been organized and the charter accepted, the company would be liable for the expense of the paving of the roadway, whether its track was laid or not at the time the paving was done.

And for the reason, Congress cannot by the mere passage of an act of incorporation impose any legal obligation upon the corporation. Such an act is a mere proposition or offer, to be accepted or rejected at the option of the corporators. Until accepted, it binds no one, and can render no one liable.

But when the charter is accepted, those forming the company secured to themselves certain valuable rights and franchises that cannot be taken from them, and come under certain obligations from which they cannot escape. No person could prevent their laying down their track and operating their roads in the streets prescribed by their charters, but these rights are received by them only on condition that they perform certain duties on their part, among them the paying for the paving referred to. A delay on their part to put down their tracks could not in any way affect their liability. Their rights and liability exist from the date of their acceptance of the charter. The owner of an unimproved lot would derive no direct advantage from the improvement until he built on it, but his liability would be the same whether he built or not; and so, in my opinion, it would be in the case of the railroad company.

Tenth. The revision of the special assessments will be based upon the official records of the District; but where these are defective or are insufficient, evidence from claimants for drawbacks will be accepted, but only in the form of an affidavit.

In the case of application for drawbacks, on account of permit work, the following evidence will be required:

1st. A copy of the permit under which the work is claimed to have been done.

2d. Satisfactory evidence that the work was actually done by the claimant in accordance with the terms of the permit, and that he has not received compensation therefor.

In case of claim for drawback on account of old material taken from in front of premises, it will be necessary to show—

1st. That the material was upon the street, and that the cost of laying had been paid in full under the operation of the old corporation assessments.

2d. That it was taken possession of by the District.

3d. That no compensation therefor has been received by the owner of the lot in front of which the material was taken, and that said owner has not in any way disposed of the material.

All applications for drawbacks will be acknowledged when received and filed, each under the head of the assessment to which it refers, until the revision of that assessment shall have been made, when the applicant will be notified of that fact, and informed that the proper credit will be given for drawbacks due upon payment of his special assessment bill.

Persons interested in any special assessment can obtain all information in respect to it without intervention of any one, by application at the office of the clerk in charge of special assessments, room 6, District office.

By order of Engineer Commissioner District Columbia.

R. L. HOXIE,
Lieutenant of Engineers, U. S. A.

SEWERS.

The following resolution of the Senate, referred to the Commissioners August 22, 1878, insures the attention of Congress to the means of remedying certain defects in the sewer system :

Resolved, That a subcommittee of the Committee on the District of Columbia be, and the same are hereby, authorized to sit during the recess of Congress to consider and examine into various plans for the improvement of the system of sewerage and sanitary condition of the District of Columbia, which have been submitted to said committee, and others which may be submitted; that said committee is authorized to examine into the system of sewerage of other cities, and employ whatever aid is necessary to secure valuable information upon the subject, the expense of said committee, and such assistance as it may require, to be paid out of the contingent fund of the Senate.

The most serious defect in the present system of sewerage of Washington is the failure to discharge the sewage into deep water of the Potomac River. The extension of the main sewers through the marshes bordering the river front and the reclamation of the latter are required. These marshes now retain enough of the sewage passing through them to create a nuisance which contributes to the poisonous influence of their natural exhalations.

The remedy is found in the plan of the harbor commission of 1872, which has had the attention of Congress, but no sufficient appropriation to carry it out. This plan contemplates the reclamation of the marshes as incidental to the establishment of a permanent water-front for Washington and Georgetown, and a single deep-water channel. If a temporary bulkhead a short distance inside the line of the new water-front were constructed from Easby's Point down-stream to a point where an open canal, prolonging the B-street intercepting sewer, should meet it, the latter would enable the discharge of this sewer into deep water, and with the temporary bulkhead would inclose a large area of the marshes, which could then be drained or filled. At the same time the contraction of the water-way of the river at this place would induce a scour over the bar of the Georgetown channel, where perpetual dredging is now required. The execution of the plan of the harbor commission rests with the general government, through the Engineer Department of the Army; but the interests of the District of Columbia are mainly affected by the want of the necessary appropriations, and there is no other remedy for the principal defect of our present system of sewerage.

This plan, when perfected, will enable the discharge of all sewers into deep running water on the Potomac front, and upon the Anacostia front as far up as the Navy-yard bridge. Above this a large drainage area will need to be similarly provided for at some future time by the contraction of the water-way of the Anacostia and the reclamation of the flats; but at present the sewers emptying there discharge mainly pure water from running streams in the county, and this will continue for some time to come.

That defect of the present sewer system which has provoked most complaint is the want of capacity to discharge the rain-fall of the violent storms which are of common occurrence in the District of Columbia. The remedy is in the construction of auxiliary sewers, and the use of certain temporary expedients for keeping the storm-water out of the present sewers until the latter can be constructed. The present sewers will not carry off the storm-water. The surface of the streets, smoothly paved as most of them are, affords an ample water-way. If the water is allowed to enter the sewers they become gorged, and the back flow through the house connections inundates the cellars and basements of

houses. If turned upon the streets, the most serious inconvenience will be the condition of the streets during the storm, for any permanent injury from this may readily be prevented, and at small expense. This, at least, is the case in the higher parts of the city, where the declivity of the streets is such as to throw off the water rapidly. In the lower areas, where the grade is flat and only a few feet above tide, in part submerged by freshets in the river, the accumulation of water is greater, and special treatment is required. There are also small basins without surface outlets.

The perfected system of sewerage for Washington and Georgetown will require that all of the sewers carrying each both sewage and rainfall shall discharge into deep running water, and shall have such capacity as to carry off the rain-fall of the most violent storm without raising the surface of the water flowing in them so high as to cause a back flow in the house connections. This requires that the upper surface of the water shall be kept at least eight feet below the surface of the ground—for cellars and basements in time of storms—a condition which, of course, is out of the question when the ground is little more than eight feet above mean high tide, as it is along the whole line of B-street intercepting sewer; so that the condition must be limited to the high grounds of the city, and modified for the low grounds, even at the ordinary stage of water in the river. When it is considered that the last freshet covered ground eight feet above tide, the necessity is still more evident.

Special treatment is necessary for these localities, which cannot have the conveniences nor the immunities of the high grounds.

I cannot see that anything would be gained at present by separating the systems of carriage of the sewage and the storm-water, and propose generally that all new lateral sewers shall be constructed of the requisite capacity to fulfill the conditions required; that the auxiliary main sewers to be constructed be designed so as to achieve the same result by supplementing the present sewers; and that the inlets for storm-water be adapted to the capacity of the sewers.

There are two principal drainage areas to be considered at present, that of the B-street sewer and that of the main Tiber sewer. The latter is the larger area, and the sewer requires immediate attention. The following concerning it is taken from my annual report as engineer of the District of Columbia for 1875:

A system of sewerage was prepared under the direction of the board of public works, and the detailed plans are now on file in this office. I can find no record of any report submitted with these plans, and am not informed as to the data and formulated in the computation of the dimensions of the sewers. The plans appear to have been adhered to only in the construction of the principal main sewers. On Sunday, the 29th day of August last, these were severely tried by a storm of considerable violence. Rain commenced falling gently about 7 a. m., and continued until 9 a. m., when it began to descend in torrents. Between 9 and 10 three-tenths of an inch fell; between 10 and 11, one and three-tenths; between 11 and 12, seven-tenths; and between 12 m. and 3 p. m., seven-tenths; a total of three inches in six hours, an average rate of half an inch per hour during this interval. Two storms, of less violence, had preceded this, and all three caused some damage to property by the choking of the inlets at boundary street and the flooding of the neighborhood by the overflowing water. The B-street sewer backed, as usual, into its several branches, and cellars and streets were flooded. The L-street sewer and smaller laterals proved to be of insufficient capacity, and the weak points have been noted for careful consideration, while the defects are partially remedied by the extension of sewerage this season.

The most important feature of these storms is their action upon the lower Tiber arch. In the case of the storm of the 29th of August the water from the county found its way, after overflowing the inlets, into the open valley of Tiber Creek, and following the bed of the stream entered the main Tiber sewer at the opening at E street north, which has received this stream for a number of years. The area of opening was 220 square feet, the sectional area of the Tiber arch from this point down to its

outlet in the James Creek canal. This had been diminished to 161 square feet of irregular aperture by the building of the North Capitol-street sewer into and under this arch, below the old opening, without groining the intersection. The North Capitol-street sewer at the time of the storm carried no water of any consequence, the connection not having been made with the upper branches, but the entire discharge of Tiber Creek into the city found its way into the bed of the stream at E street, and entering the old mouth of the arch, passed through by the contracted opening occasioned by the building in of the connecting sewer in North Capitol street. The conditions were therefore favorable to the lower arch, since this contracted opening would prevent as rapid a discharge as would otherwise take place. Notwithstanding this obstruction the water was not backed up at any time to the crown of the arch at the entrance, showing that the opening was sufficient to receive the storm. The lower end of Tiber arch at Virginia avenue was closed by a dam, which prevented the passage of the water into the James Creek canal and turned it laterally by two breaks in the arch of 30 and 12½ feet respectively into the old canal. These openings were partially obstructed by temporary dams reaching to a height of about five feet above the floor of the sewer, which is 3½ feet below mean high tide. The total area of opening was about 264 square feet. The tide was high at about 1 p. m. The sewer was, and still is, obstructed between E street and Virginia avenue by extensive deposits of gravel, sand, and clay.

Under these conditions the sewer ran full at the outlet near Virginia avenue to within 5 inches of the crown of the arch during the maximum discharge. At the Botanical Gardens the water forced its way through the openings left in the arch for the drainage of the gardens, and gradually accumulated in the depression which these gardens occupy, until at 2 p. m. it stood 3.35 feet above the crown of the soffit of the arch. It maintained this height for about two hours, and then gradually subsided. This gives a measure of the pressure sustained by the arch at this point during this time, viz, 209.37 pounds to the square foot; and probably the maximum pressure occurred here. No water escaped through the manholes at any other point. The brickwork of this arch is two feet in thickness, and is covered by about 15 inches of earth. The weight of these combined is 370 pounds, leaving a considerable margin of safety at this point. Eventually an equilibrium was established by the accumulation of the escaped water upon the top of the arch. Notwithstanding the disadvantages under which the sewer acted upon this occasion, it may be that the next trial would be under less favorable circumstances. The completion of the North Capitol-street sewer shortens the line between Boundary street and Pennsylvania avenue by about 1,000 feet, and the flood-water will be discharged more rapidly than heretofore into the lower arch. The tide was not high upon this occasion during the critical period of the storm, and storms of greater violence are to be anticipated. The data in my possession are too meager and the time which I have been able to give to its consideration too limited for a thorough discussion of this problem, but a few general conclusions may be stated:

The meteorological records of the United States Naval Observatory from 1843 to 1866 show that during this time the greatest rain-fall during any one year was 46.862 inches, which fell in 1866. The greatest amount of fall during any one month occurred in October, 1866, and amounted to 10.132 inches, of which 7.92 inches fell in fifty-six hours. The greatest mean rain-fall for this entire period in any month occurs in July, and amounts to 3.806. The detailed phenomena of these storms are not given, but the record shows that they are to be expected at any time between July and October, preferably one or the other of these months, and rarely much earlier than July or later than October. From the records of the Signal Service the details of the storm of August 29 last were obtained, and although this is altogether the most severe storm of which the office has a record in the District of Columbia, it is by no means exceptional in the rate of precipitation during a limited time.

August 18, 1875, 1.38 inches fell between 3 and 8 o'clock p. m., of which 1.2 inches fell between 3.15 and 4.15 o'clock p. m.

August 2, 1875, 2.25 inches fell between 12.30 o'clock a. m. and 4 o'clock a. m., of which 1.3 inches fell between 1.45 and 3 o'clock a. m.

October 19, 1873, 2½ inches fell in 20 hours, of which 1 inch fell in 2 hours.

October 4, 1873, .9 inch fell in six hours, of which .65 fell in ¼ of an hour.

September 13, 1873, 1.86 inch fell in 11 hours, of which .8 inch fell in ½ an hour.

August 17, 1873, 1.85 inches fell in 3 hours, of which 1 inch fell in ¼ of an hour.

August 11, 1873, 1.18 inches fell in 2 hours, of which 1 inch fell in ½ an hour.

August 1, 1873, .85 inch fell in 1½ hours, of which .65 fell in less than ¼ an hour.

July 27, 1873, 2.44 inches fell in 7 hours, of which 1 inch fell in ¼ of an hour and 2 inches in 2½ hours.

A letter from Prof. Joseph Henry to Maj. G. K. Warren, of the Corps of Engineers, now on file in the Engineer Department, gives the record of a storm on the 29th of July, 1865, in which 4.92 inches of rain fell between 3.15 p. m. and 6.30 p. m. Professor Henry says of this:

"A violent thunder-storm occurred this day at about half past three o'clock in the after-

noon, attended with high wind and hail. A larger amount of water fell in the space of twenty minutes on the Smithsonian building than ever fell before since the erection of the edifice. * * * The water appeared to fall in continuous sheets for a few moments."

The rain-fall during this storm was at the average rate of 1.523 inches per hour for three hours and a quarter, more than three times the average rate of fall of the storm of the 29th of August ultimo, and a little more than half its duration. It gives a total of precipitation about two-thirds greater in a little more than half the time. The behavior of Tiber sewer in such a storm, with its unballasted flat arch under Third street, is a matter for grave consideration.

It will, perhaps, be safe to assume that the freshets of the Potomac, which occur about the month of April, will never coincide with the violent storms, which are not to be expected before July, so that the most unfavorable condition of the river will be very high tide at the normal stage of water. The same fact of the late occurrence of storms will prevent their precipitation upon frozen ground in the early spring, and this would rarely happen in the late fall rains. Absorption may therefore be depended upon to take up from 25 to 40 per cent. of the rain-fall in the county up to the limit of saturation, and, except in the case of those violent showers which are sometimes thrown off from very dry ground, with but little loss. Assuming the case of a storm of such violence and duration that 1 inch per hour must be carried off exclusive of absorption, it will be necessary for the Tiber sewer to discharge 2,200 cubic feet per second. According to the formula of Darcy and Bazin for conduits of this description, such a discharge into the James Creek Canal would require a head of water at the Botanical Gardens of 7.92, or nearly 8 feet, all of which is converted into a pressure upon the arch at this point, as the sewer is horizontal. The contraction of the area of the sewer just below the gardens, by the flattening of the crown of the arch to accommodate it to the carriage-way of Third street, favors the location here of the point of maximum pressure; and, in fact, during the storm of August 29, although the water touched and caused a rattling of the manhole-covers below, none escaped through the crown of the arch except in the gardens. The weight of the arch and its ballasting here being only 350 pounds, the most sanguine estimate of the cohesive strength of the masonry would fall short of security under these circumstances. In the event of an unfortunate combination of freshet and storm, the capacity of the sewer seems to be no longer doubtful.

A rupture of this sewer, especially at the Botanical Gardens, would be disastrous, as the sewer would then be obstructed and the entire column of water would be turned out upon the streets. For this reason I am inclined to give more weight to a hasty examination without sufficient data than is generally advisable in the criticism of a carefully matured plan.

An overflow can be made here so regulated as to act only when the lower arch is under a pressure of say three feet, which it can safely bear. It is probable that a storm which would cause an overflow would occur only at intervals of many years, and then the inconvenience would be limited to the escape of the surplus water, while the sewer would be kept at work at its full capacity and without danger of injury. The measure of inconvenience and damage to property under this arrangement can then be made a safe and sure criterion of the necessity for an auxiliary sewer. This plan involves only a small expenditure and would not injure the appearance of the gardens nor occasion any inconvenience except where the overflow acts; whereas they are now subject to flooding at every severe storm. The construction of an auxiliary sewer—an intercepting sewer to carry off the water into the Eastern Branch—would cost about a quarter of a million of dollars.

The apprehension expressed in that and in subsequent reports has been justified. On the 5th day of August, 1878, a storm occurred of more than ordinary violence, giving a precipitation of 2 inches in 40 minutes, a rate of 3 inches per hour. An examination of the sewer at the Botanical Gardens after this storm, showed that the arch had been lifted bodily, breaking at the crown and with marked uniformity at the haunches, on each side, about 6 feet from the springing line, for a distance of about 400 feet, and, on falling again into position with the subsidence of the head of water, had been broken, in part, midway between the crown and the fracture at the haunch. This part of the sewer was therefore covered by two brick beams, fractured in part, resting on the haunches of the arch and abutting against each other at the crown. The pieces had settled more or less out of position, so that the abutting surfaces were in some places 9 inches less than the thickness of the arch, the fractured end projecting this distance into the sewer. The water, escaping through the broken arch and the manholes above, flowed along Third street and

Missouri avenue toward Sixth and B streets, where it joined the storm water from the B-street area and flooded that street over the line of the B-street sewer.

The broken arch has been removed from the Tiber sewer, and should be replaced at once, an overflow being constructed at the same time as a temporary relief to the sewer.

In devising a method of permanent relief for this sewer it is necessary to assume certain conditions. The rain-storms of the District of Columbia appear to be exceptionally violent, both in the rate of precipitation and their duration. Washington is and probably will be mainly paved with asphaltum and water-proof stone-block pavements with no power of absorption. It has a rapid drainage within the city limits to the low grounds, and the county streams are fed from steep hillsides. It was a storm of three inches per hour which ruptured the Tiber sewer. Under these circumstances I have assumed that two inches per hour may have to be actually carried off, the sewers running full bore.

The water supply of the District of Columbia averages 158 gallons *per capita*, or a total of 23,000,000 gallons daily; sufficient to keep large sewers, if properly constructed, in good sanitary condition, with the assistance of a proper system of ventilation. The computation based upon the removal of two inches of rain-fall per hour is assumed to include this water supply.

The grade of Pennsylvania avenue should be raised to at least 14 feet above mean high tide. The flow of Tiber sewer in times of storms to be kept 6 feet below the surface of the ground at the avenue (at a reference of + 8.0) falling to, say, 6 inches above mean high tide at the James Creek Canal. This will give greater immunity from storms to the low areas of Tiber basin south of the avenue than they can enjoy in time of freshets from the rise of the river. Above the avenue the flood surface of the water in this sewer is to be kept at 8 feet below the surface of the ground, and an intercepting sewer, to flow under the same conditions, is computed to carry off the remainder of the flood-water of Tiber to the Eastern Branch. All cellars or basements below the line of flow in the sewer must have flood-valves to arrest the back flow of the water. The greater part of the low grounds from which complaints now come of flooding, will require these valves under the new system here proposed, and these should be put in at once. With these valves in position and the overflow for Tiber sewer, the construction of the large intercepting sewer to the Eastern Branch may be postponed, although it is, of course, advisable to construct it as soon as possible.

The following extract from my annual report as engineer of the District of Columbia for 1876, outlines the plan of relief for the lateral sewers and the low grounds:

In general, in the plan of improvement of Washington and Georgetown, and ordinarily of any city in which the surface-water is carried off by the sewers, each square is provided with a catch-basin at one or more of its lower corners, which receives the drainage from the square and from one-half of the surrounding carriage-way, and this drainage is emptied into a sewer which gradually increases in size in proportion to the number of squares, the drainage of which it receives in succession. The construction of modern pavements of carriage-ways is based upon this system. It avoids all intersecting gutters to break the uniformity of its surface, and surrounds each square with a low elevation caused by the rise of the pavement from the gutter to the middle of the street, the crown of the carriage-way, which confines the surface-water of the square to the gutter which surrounds it, unless the water rises to such a height as to flow over the crown of the carriage-way, the gutters leading it to the catch-basins placed to receive it. On streets of considerable inclination where the crown of the carriage-way on the intersecting street is low, as on the streets paved with concrete, or asphalt, the continuous gutter of the one street is not interrupted by the crown of the other, and unless some means be taken to prevent it the surface-water will pass

the catch-basin at the corner of a square without entering, and will accumulate at some other point where the catch-basins and their outlets will be required to receive and discharge the drainage of two or more squares. By taking advantage of this fact and favoring to some extent the application of the principle in laying the pavement of the carriage-way, the inlets to the sewers may be so located as to very greatly diminish the cost of rectifying errors in the dimensions of the sewers themselves.

The use of self-acting flood-valves was recommended in my last annual report, for the protection of private property against the consequences of an overtaxed sewer, and particularly in the case of cellars below or near tide-level, in which no other remedy could be devised. The valve should be placed at or near the building-line to prevent the entrance of water from the sewer into the premises by means of the house-connection.

THE B STREET SEWER.

The following extract from my annual report as engineer of the District of Columbia for 1875 gives the status of the B-street main sewer, together with some of the causes which impaired its usefulness, and suggests the remedy which subsequent reflection has convinced me is the proper one:

"The B-street intercepting sewer remains a source of complaint from flooded property. It has been recently cleaned, in order to make use of its full capacity, which is no doubt insufficient for the work it has to perform. With a necessarily flat grade and with the highest point of the sole of the sewer two feet below mean high tide, it has not sufficient reservoir capacity to accommodate the storm water of 800 acres nor fall enough to carry it off. Relief may be afforded by the construction of an auxiliary intercepting sewer upon the general line of New York avenue, which will take nearly half this area. Afterward, if found necessary, the drainage of the area lying south of B street may be intercepted by a parallel sewer. This need be only of slight depth, as it will not be required to drain any cellars or basements. When this is all done, the property now suffering principally from flooding will still find no permanent relief except in the use of flood-valves, and these can be introduced at once with the same effect. The limits within which these will be required, however, will be reduced, as the water is now backed up extensively in the lateral sewers. It was found necessary to build 354 feet additional of this sewer in order to complete the grading of Virginia avenue and the filling of the old canal under contracts with the Board of Public Works. The capacity was increased from 92 square feet to 115 square feet sectional area and a direct line taken toward the channel of the river. Eventually the sewer must be extended through the marshes to the new river front, but this can only be done in connection with the construction of the bulkhead for the latter. A temporary channel has been dredged out along the east side of the Seventeenth-street wharf.

With the completion of the sewer system the necessity arises of maintaining a vigilant watch upon its condition and providing in every way for its efficiency, while all defects which are apparent should be made the subject of careful study. The extensive excavation which has been going on during the last few years, and especially that for the sewers themselves, together with the material brought down by floods from the beds of the streams in the county and that which in spite of every precaution finds its way into them from the city, have contributed to fill them up with deposits of sand and clay and rubbish of every description. Out of the B-street sewer were taken last summer 2,655 cartloads of mud and sand, 10,493 bricks, and 40 cartloads of stone. The lower Tiber arch contains large deposits of clayey sand and gravel, reaching at some points to the springing line of the arch; and some of the smaller sewers have been choked occasionally.

The filling up takes place mainly in tide-water, the sewers having elsewhere a sufficient fall to keep them clean. If this filling up were to continue indefinitely at the same rate, the cost of removing these deposits would be a very serious consideration; but it is probable that, when once removed, the accumulation will be very slow thereafter. The gravel-pits at the inlets which receive the streams from the county arrest the sand and gravel brought down by floods, and these have, during the present season, been enlarged and perfected. The silt basins of the corner traps prevent the entrance of material from the streets. Proper attention to these in keeping them clean will save the expensive process of removing the material from the sewers. The clearing of these sewers should be completed this winter, together with the dredging of the James Creek Canal, in order to make their full capacity available for carrying off flood water.

I assume, as in the case of the Tiber drainage, that the sewers of this drainage area may be required to carry off, running full bore, two inches per hour of rainfall. The capacity of discharge of the existing sewer is then computed, assuming a head of eight feet above mean high tide at Seventh street near Pennsylvania avenue, as in the case of Tiber; the reason being that this is the height of the last freshet, and protection below this level, except by flood-valves, could only be given at a cost which no present consideration could justify. The total area south of B street is then provided for by a parallel sewer on B street computed to discharge its entire drainage, and the line of an intercepting sewer on the north is fixed by defining the northern boundary of the area adjacent to the present sewer which can be drained by it under the assumed conditions. The size of this intercepting sewer is then computed for the remainder of the B-street area upon the same conditions as the main intercepting sewer for Tiber, viz: The flow-line to be kept eight feet below the surface of the ground, and the sewer to be capable of discharging, when running full bore, two inches of rainfall per hour, including the water supply.

Two auxiliary sewers are needed in this case: because if only the intercepting sewer on the north were to be constructed, the drainage area on the south being carried by the existing sewer, the line of the intercepting sewer on the north would be brought down too near the low grounds, and too little grade and depth obtained for it.

To rectify this line still further, I propose to provide for the overflow of the upper section of the present sewer into the parallel sewer to be constructed south of it, so enabling the corresponding section of the intercepting sewer to be carried farther northward with better grade and increased depth, and giving the line of New York avenue, which is the least expensive one. As in the case of the Tiber drainage area, the low grounds will require protection by flood-valves wherever basements and cellars are drained. It is to be remembered that water will not, of its own accord, run up hill, and a cellar draining below tide or freshet is at the wrong end of its drain-pipe, the other end being the upper surface of the external water.

For temporary relief, there is nothing to be done except to diminish the size of the inlets to the sewers and throw the storm-water upon the streets. It will descend to B street, which is the valley of this area, flood it for a distance of about 6,000 feet as it is flooded by the river in time of freshets, and so find its way to the river. If, at the same time, those flood-valves be put in, which will be required under the perfected system of sewerage, the great majority of the present cases of complaint will be attended to.

VENTILATION.

A third source of complaint of the existing system of sewerage is the absence of proper ventilation. For this there is ample provision in the construction of the sewers, and a very small outlay only is required to effect it satisfactorily.

The following extract from my annual report as engineer of the District of Columbia for 1876 explains the present condition of the sewers in this respect, and suggests the plan of ventilation:

A question of growing importance is that of the disposition to be made of the noxious gases which are generated in the sewers. No plan has yet been tried with the present sewer system, but after an examination of the various methods proposed or applied elsewhere, I incline to the opinion that but one is practicable.

The use of absorbents or disinfectants for disposing of the gases will do perhaps for

a special and limited application, like the use of a trap for local suppression, but the attempt to capture in this way the gases generated in one hundred and thirty miles of sewers has not the appearance of practicability. The copious admixture of pure air with these gases renders them innocuous, and the difference of temperature between the sewers and the external air, together with the great "diffusive power" of the gases, which are of slight density, afford the means of introducing air into the sewers and withdrawing the diluted gases. The failure heretofore of plans for ventilating sewers seems to have been due to the attempt to effect this in a wholesale fashion by means of chimneys creating powerful draught, and from which too much was expected. The draught was created, but its influence lost within a small area. The system which applies to the ventilation of a mine fails in its application to sewers with their long ramifying lines of slight sectional area and numerous openings into the external air. The ventilation can probably be effected by making use of every opening and taking advantage of the motion of the gases in the sewers, which latter may be regulated to some extent. It will be necessary to perforate the covers of the manholes, which are located at intervals of about 150 feet, and to apply some device for intercepting the gases in their motion through the sewers from the lowest to the highest point, so as to obviate the present tendency of these gases to accumulate at the upper extremities of the sewers. This tendency is that of the gases in a chimney-flue, the whole line of sewer being an inclined flue, and it is probable that the simple opening of the manholes for the admission of air, without any mechanical device for the deflection of the gases into the manholes, would favor this tendency by the deflecting power in the direction of the sewer of the slightest descending current of heavy air. Under the old corporation government works, the sewers constructed were at first without means of ventilation. After the destruction of one or two of them by the explosion of the accumulated gases, the manhole covers were perforated, and no further trouble was experienced. These sewers were neither of great extent nor of very general use.

The best system now in use for the purification of dwellings having sewer connections is neither by absorption, disinfection, nor suppression of the gases, but by their purification by the abundant admixture of pure air. The main pipe through which the house-drainage escapes to the sewer is carried up through the roof of the house and left open at the top; another and independent pipe is connected with this one near its point of exit from the premises, and is also carried up through the roof of the house and left open at the top. All pipes entering the main pipe within the dwelling are effectually trapped, so that the two pipes first described constitute a siphon, through which there will be a constant circulation of air, the ascending current following the warmer leg of the siphon. If either pipe can be carried up next to a chimney-flue which serves a constant fire, this action will be greatly facilitated by maintaining a greater difference of temperature between the two siphon legs.

It is perhaps advisable for the present to separate the system of ventilation for dwellings from that of the sewers by trapping the house-connection at the building-line. Whether it may be expedient to utilize the system of house-ventilation for assisting in the ventilation of the sewers, is a question which can be decided hereafter. The house-system will render involuntary assistance, and without prejudice to itself, if it be properly maintained, through the forcing of the traps of the house-connections by the pressure of gases in the sewers whenever this pressure demands such a mode of escape for the gases. There need be no apprehension, with an abundant supply of water, that the sewers will ever be a source of injury to the health of the District, but their thorough ventilation should be gradually effected; and the immediate ventilation of all dwelling-houses connected with sewers, in conformity with some established plan, should be enforced by appropriate legislation.

There appears to be as yet no reason to apprehend any future difficulty in the removal of sewage by the Potomac River from the water-front of Washington and Georgetown after its discharge from the main sewers.

Since writing the foregoing, I have found the views therein expressed advocated by excellent authority. The following extract is from "Sanitary Engineering," by J. Bailey Denton, F. G. S., M. Inst. C. E., published in 1877:

Ventilation may be effected, as already stated and as shown in Drawing I, by pipes—(1) in continuation of the soil-pipe of the water-closet, and (2) connection with the communicating sewer of the trap-tank or gullies into which the several sinks of the dwelling discharge.

Ventilating-pipes should not be less than 3 inches in diameter—better if 4 inches—and should be carried up above the roof of the dwelling to avoid the possibility of the passage of gases or effluvia by the windows into the dwelling. (See Drawing I.)

As a rule, the down-pipes for the discharge of rain-water from roofs should be avoided as ventilators, though probably in certain cases they may be used without objection. Perfect circulation of air through the communicating sewer of the dwelling may be secured by the double ventilation to be effected by an inlet at the ground level

and an outlet at the roof. This simple arrangement is a very important one. It will doubtless occur to you that if every private dwelling in a town or village were possessed of such a mode of ventilation, the effluvia which now often rise up into the street from manholes, lampholes, and gullies, and thence through doors and windows into houses, would be avoided. It has been proposed, in order to secure a constant "up" draught to the ventilating-pipes attached to dwellings, that a hood or cowl, revolving with the wind, should be placed on the top of them, which by its special construction shall draw out the contents of the pipe, "induce an upward current" from below. There are several inventions aiming at this object, which will be described when speaking of the ventilation of the dwelling; but all such arrangements are only to be recommended when a proper circulation of air cannot be secured by natural ventilation. (See Drawing IV.)

The manholes and lampholes should not only serve to effect the several objects to which I have referred, but to secure, also, by their united action, the perfect ventilation and aeration of the whole sewerage system. Where they are sufficiently numerous and placed in proper positions, not only may the passage of sewer-gas from the common sewer into houses be prevented, but, by the even ventilation afforded, excessive odor in the streets may be obviated also.

Although there are few things connected with our subject so important, there is no doubt that up to the present moment the several means adopted for the ventilation of sewers have failed in the attainment of a satisfactory result. It is hardly necessary to say that wherever sewer-gases escape into dwellings they have an injurious if not a dangerous effect, and that everything that can be effected should be done to prevent their entry. Uniform aeration of the common street sewers by frequent inlets of pure air and outlets of foul air seems the only means of ventilation which bears the test of experience.

As already stated, the object to aim at is the complete and uniform aeration of the whole sewerage system, and to effect this nothing more is requisite than the existence of a sufficient number of open ventilators in the shape of manholes, lampholes, and shafts up to the level of the streets—*assisted by light flaps in some manholes*, as already described—and the effective ventilation of private communicating sewers by shafts or pipes reaching above the roofs of the houses.

With this provision the accumulation and escape of sewer-gas in an excessive and objectionable quantity at any one place is practically impossible; but the proper supervision of private dwellings with respect to the ventilation of their soil-pipes is an essential part of the arrangement.

Mr. Denton also quotes from Mr. Waring's recent work on the Sanitary Drainage of Houses and Towns, as follows:

The principle of the ventilation of a sewer is practically the same as that adopted by builders for the prevention of dry-rot. The fungi which cause this rot in timber cannot produce their germs in a current of air, and if a sufficient number of ventilating openings are made, communicating with each other, the action of the wind from one side or the other will cause a sufficient current. So in a sewer a continuous movement of the air in one direction or the other carries away and dilutes sewer-gases, and if they contain germs of organic disease capable of infecting the human blood, these are believed to be destroyed by oxidation or otherwise.

A safe sewer always has a current of air passing through it, and if it contains sewage matters at all these also must be in constant motion. On this incessant movement of the air and the liquid must we rely for our only security. A solution of sugar in water remaining stagnant and protected from a free circulation of air will enter into a vinous fermentation. If well ventilated and agitated no such fermentation takes place.

The resulting gases of sewer decomposition are the vehicle or medium for the conveyance of infection, and from their lightness they give rise to a rapid diffusion, owing to the eagerness with which they seek means of escape at the higher parts of the sewer-system, that is, in house-drains, soil-pipes, &c.

It may not be possible entirely to prevent the development of the poison in even the best arranged sewer, but it is possible, by a free admission of air, to supply the oxygen which will take away its sting and render it harmless. Sewers which have large and frequent openings at the street surface, and through which the liquid contents have a constant flow, may give forth offensive smells, but if they have proper attention, sanitary evils do not often result.

Sewer-gas when largely diluted on its escape (at frequent intervals) into the air of the street, is probably nearly or quite innocuous, but when it forces its way into the limited atmosphere of a close living-room the poison or the germs of disease accompanying it may easily work their fatal effects.

I am aware that opposing views have been recently advanced and the theory of close sewers and entire absorption of the gases by running water has been advocated, but, in the light of all past experience, I am inclined to trust to the combined action of this little stream of running water from the daily water supply, supplemented at long intervals by the cleansing and scouring effect of storms, and to the superincumbent eighty miles of atmosphere from which we draw at pleasure to dilute these gases, oxidize and render them innocuous.

The building regulations of the District of Columbia now contain the necessary provision for the ventilation of dwellings, but the requirements may be perfected by a code of rules for the guidance of plumbers and builders. The necessary work upon the main sewers is being in part gradually effected by the substitution of perforated manhole covers for the close covers heretofore used. This work requires no special appropriation.

CONCLUSION.

In all of the foregoing I have assumed that the present system of water carriage for sewage, and its combination in a single system of sewers with the discharge of storm water, is the permanent system and the best for Washington and Georgetown. The system being already established, it is hardly worth while to discuss its advantages and appropriateness now.

The conduits for storm water must be constructed and may be used as sewers also until sufficient reason appears for making some other disposition of the sewage.

In the lower sections of the Tiber and the B-street sewers, which are subject to the inflow of tides, permanent deposition of sewage does not now occur, and, with increased dry-weather flow in the future, this is still less to be apprehended. Whatever may be thrown down on the incoming tide is now removed with the outflow, excepting the heavy sand and gravel. Near the outlets of both sewers the wooden floors are habitually clear of even this material. Farther up-stream it is found assorted by the current and ranging from very fine sand below to very coarse gravel above. It is proposed to improve the means of keeping this material out of the sewers, where it does not belong.

Should it ever be necessary to do so, it is probable that the area of wet perimeter for the dry-weather flow may be contracted, the head increased, and a greater scouring velocity obtained by simple modifications of the lower sections of these sewers.

If at any time in the future it should be considered advisable to provide for cellars and basements below tide, or below freshets, otherwise than by the use of flood valves or water-tight construction and high-service connection with sewer, the system of sewerage of the low grounds can be isolated and provision made for pumping the water supply, the sewage, and a part of the seepage of this area.

From computations made under my direction, by Mr. Thomas W. Jay Cox, jr., and Mr. John F. Alexander, I estimate approximately the cost of these proposed relieving sewers at \$554,085.77, of which \$31,210.70 would be chargeable to the filling of streets in Tiber Valley from the surplus excavation. At the same time an expenditure of about \$150,000 will be required for the river improvement, hereinbefore referred to, reclaiming the Kidwell flats in connection with a canal outlet to deep water for the B-street sewer.

WATER DEPARTMENT.

No estimates are presented in this report for the expenditure, which cannot be long postponed, required for increasing the water supply. As

a means of temporary relief an additional high-service district has been created, to be supplied from the 36-inch main by pumping. Upon this project I made the following report to the Commissioners of the District of Columbia:

MAY 27, 1878.

The Hon. the COMMISSIONERS OF THE DISTRICT OF COLUMBIA:

GENTLEMEN: At your request, I have examined into the question of affording temporary relief to the high ground of the city of Washington in the matter of water supply, and have the honor to report as follows:

It will be necessary to divide the city into high and low service districts. For the former the 36-inch District main should be used exclusively. The supply for the high-service district should be taken from this main and elevated by steam-power; the best location for the pump being the immediate vicinity of the main near Rock Creek. A stand-pipe can be conveniently located on the line of Sixteenth street extended, above Boundary street, near the crest of the hill.

For present purposes a pump capable of lifting 2,000,000 gallons 133 feet in 24 hours may be located near the corner of Seventeenth and U streets northwest, on the line of the 12-inch main, with a stand-pipe of sufficient capacity to constitute a small reservoir, say 120,000 gallons, on Meridian Hill, to be connected with Capitol Hill by a small independent main. The use of the water should, of course, be restricted to localities now actually suffering from low pressure in the main. An expenditure not exceeding \$25,000 to \$30,000 should suffice for this.

The great ultimate want of a larger conduit from the present distributing reservoir and a new accumulating reservoir on Meridian Hill should not be lost sight of, and is in no way affected by this temporary arrangement.

It was decided to create the smaller high-service district, and work is now progressing upon the stand-pipe and pumps.

When the permanent system of increase of supply shall have been perfected this high service can be transferred to the high grounds above Boundary street.

It is questionable whether any further expenditure in this direction—the use of steam-power to replace the loss of head due to friction of pipes and the drain upon them—is advisable, when a gravity supply can be so readily obtained sufficient for all purposes. The cost of bolstering up an insufficient supply had better be applied to a permanent increase.

The problem is a simple one, consisting only in bringing this supply from the distributing reservoir and storing it upon the high ground near the city.

WORK TO BE DONE.

The work on hand will employ a considerable force of clerks and assistants during the coming winter. The revision of the special assessments, the completion of existing contracts, the preparation of detailed estimates and plans for sewers and water-supply, with the current work of repair, are progressing favorably.

In the office-work the District has sustained a serious loss in the death of Mr. B. Oertly, computing engineer. A gentleman of high attainments and great industry, he had been so long identified with the District government that his knowledge of affairs was hardly less valuable than his talent and skill as an engineer.

In conclusion, I venture to repeat certain recommendations of my last annual report:

The duties of the surveyor in connection with the special assessments are practically terminated with the completion of the plats required, but a large amount of work on account of the District government is still required from his office. The preparation of a system of legal grades adapted to the changes made by the board of public works, the rectification of the building-lines of streets, avenues, and alleys in Washington and Georgetown, and the establishment of additional monument-stones on the District boundary-line, are matters which deserve immediate attention.

In pursuance of the act of Congress approved June 20, 1874, the surveyor receives

no other compensation than the fees prescribed by law for special services. Your attention is invited to the very forcible reasons presented in his report for a readjustment of the matter of his compensation.

A topographical survey of the District, with a view to the extension into the county of the general system of streets and avenues, and the establishment of a system of legal grades outside of the present city limits, is very much needed, and should anticipate the irregular subdivision of land by individual owners, which will otherwise have to be rectified hereafter. The extension of the work of improvement is to be provided for, and should begin with the completion of what has been already undertaken. In several localities the suspension of the work of improvement has inflicted serious injury upon adjoining property, having deprived it of existing improvements without replacing them in any manner.

Very respectfully,

R. L. HOXIE,
Lieutenant of Engineers, U. S. A.

Maj. WM. J. TWING,
Corps of Engineers, U. S. A.,
Commissioner of District of Columbia.

APPENDIX S 1.

REPORT OF THE CHIEF CLERK.

ENGINEER DEPARTMENT, DISTRICT OF COLUMBIA.

Washington, November 15, 1878.

MAJOR: I have the honor to submit the following report of the work done by the clerical force of this department for the past seven months:

From November 1, 1877, to June 30, 1878:

Number of communications received, briefed, and recorded in Letters Received	2,555
Upon these 2,676 indorsements have been made and 1,704 reports submitted.	
Letters and orders written	840
Permits (water, sewer, gas, and miscellaneous) issued	1,749
Number of copies of contracts drawn	36
Number of vouchers and bills prepared	185

From July 1 to October 1, 1878:

Number of communications received, briefed, and recorded in Letters Received	2,184
Upon these 2,184 indorsements have been made and 1,456 reports submitted.	
Letters and orders written	1,202
Permits (water, sewer, gas, and miscellaneous) issued	1,006
Number of copies of contracts drawn	51
Number of sets of vouchers and bills prepared	99
Number of special assessments revised	176

About 30,000 claims for drawbacks on account "of erroneous or excessive charges in respect to" assessments for special improvements have been received, classified, and filed. These claims are disposed of as rapidly as assessments to which they pertain are revised.

The bulk of the clerical force is now, and has been for a long time, employed upon the work of revision of special assessments.

The preparation of the new sheets of the sewer plan of the cities of Washington and Georgetown is much retarded by the pressure of current work. They will be completed during the coming winter.

All contracts are copied into a book and signed by the Commissioners of the District of Columbia, as provided for by act of Congress approved June 11, 1878.

I venture the recommendation that at no distant day the salaries of

the employés of this department may be readjusted upon a basis commensurate with the duties performed by each.

Very respectfully,

JOSEPH C. ROCK,
Chief Clerk.

Maj. WM. J. TWINING,
Corps of Engineers, U. S. A.,
Engineer Commissioner of District Columbia.

APPENDIX S 2.

REPORT OF THE WATER REGISTRAR.

OFFICE OF THE WATER REGISTRAR, Washington, D. C., November 4, 1878.

SIR: I have the honor to make the following report of the operations, &c., of the water department, from November 1, 1877, the date of the last report, to June 30, 1878, the end of the fiscal year.

WATER MAINS.

The total length of water mains laid and used in the distribution of Potomac water in the District of Columbia is 891,540 feet, or $168\frac{4500}{5280}$ miles.

1st. Laid by the United States: 30-inch, 12-inch, 6 and 4 inch mains, 93,750 feet, or $17\frac{3990}{5280}$ miles.

2d. Laid by the District of Columbia: 36, 30, and 20 inch mains, 27,848 feet, or $51\frac{448}{5280}$ miles.

3d. Laid by the late corporation of Washington: 6 and 4 inch mains, 55,000 feet, or $10\frac{2200}{5280}$ miles.

4th. Laid by the water department since its organization to June 30, 1878: 12, 6, and 4 inch mains, 714,942 feet, or $135\frac{4142}{5280}$ miles.

Of the above there was laid since November 1, 1871, to June 30, 1878, 278,141 feet, or $52\frac{3581}{5280}$ miles, and from November 1, 1877, to June 30, 1878, 13,215 feet, or $2\frac{655}{5280}$ miles, of which the following is a correct list:

Street.	Streets between.	Diameter.	Length.
			<i>Feet.</i>
N north.....	New Hampshire avenue and Twenty-first west.....	6-inch...	252
Vermont avenue.....	Q and R north.....	..do...	} 1,170
Q north.....	Vermont avenue and Thirteenth west.....	..do...	
Fourth west.....	N and O north.....	..do...	420
Sixth east.....	North Carolina avenue and B south.....	..do...	384
V south.....	Eleventh and Twelfth west.....	..do...	276
Twenty-fifth west.....	I and K north.....	..do...	582
C north.....	Sixth and Seventh east.....	..do...	660
Second east.....	G and H north.....	..do...	} 936
G north.....	Second and Third east.....	..do...	
F south.....	First and Second west.....	..do...	432
L north.....	Nineteenth and Twentieth west.....	..do...	432
O north.....	Sixteenth and Seventeenth west.....	..do...	516
B south.....	Eleventh and Twelfth east.....	..do...	372
Twenty-sixth west.....	I and K north.....	..do...	600
Concord avenue.....	S and Boundary north.....	..do...	81
First east.....	D and E north.....	..do...	576
B south.....	Second and Fourth east.....	..do...	912
S north.....	Eighteenth and Nineteenth west.....	..do...	444
K north.....	Fifth and Sixth west.....	..do...	192
M north.....	Twenty-fourth and Twenty-sixth west.....	..do...	948
G north.....	Tenth and Twelfth west.....	..do...	732
O north.....	Fifteenth and Sixteenth west.....	..do...	234
D south.....	Ninth and Tenth east.....	..do...	312
W north.....	Thirteenth and Fourteenth west.....	..do...	144
D north.....	Third and Fourth east.....	..do...	480
Nineteenth west.....	T and Lawrence north.....	..do...	828
In alley, Sixth and Seventh.....	G and H northwest.....	4-inch.....	300
Total length.....			13,215

FIRE-PLUGS.

There are in the District of Columbia 795 fire-plugs, nearly all of the McClellan patent. Nine have been erected since November 1, 1877, to June 30, 1878, of which the following is a correct list:

Northwest corner Second and G streets, northeast.
 Southeast corner Second and F streets, southwest.
 Southwest corner Twelfth and B streets, southeast.
 Southwest corner First and E streets, northeast.
 Northwest corner Twenty-fifth and M streets, northwest.
 Northeast corner Twenty-sixth and M streets, northwest.
 Northwest corner Eleventh and G streets, northeast.
 Southeast corner Ninth and D streets, southeast.
 Northeast corner Third and D streets, northeast.

STOP-VALVES.

From November 1, 1877, to June 30, 1878, there have been 25 large stop-valves and boxes inserted, of which the following is a correct list:

Size.	Location.
One 2-way 6-inch.....	Northwest corner of Q street and Vermont avenue, northwest.
Do.....	Center of Q street, east side Thirteenth street, northwest.
One 4-way 6-inch.....	Center of V street, west side Eleventh street, northwest.
Do.....	Center of Seventh and C streets, northeast.
One 2-way 6-inch.....	Center of Sixth street, east side C street, northeast.
One 4-way 6-inch.....	Center of Second and G streets, northeast.
Do.....	Center of Third and G streets, northeast.
One 2-way 6-inch.....	Center of F street, west side First street, southwest.
One 4-way 6-inch.....	Center of Second and F streets, southwest.
One 2-way 6-inch.....	Northwest corner Nineteenth and L streets, northwest.
Do.....	Southeast corner Twentieth and L streets, northwest.
Do.....	Center of Twelfth and B streets, southeast.
One 4-way 6-inch.....	Center of First and E streets, southeast.
One 2-way 6-inch.....	Northeast corner Second street and Pennsylvania avenue, southeast.
Do.....	Northeast corner Fourth and B streets, southeast.
One 4-way 6-inch.....	Center of Second street and Pennsylvania avenue, southeast.
Do.....	Center of S street, east side Nineteenth street, northwest.
One 2-way 6-inch.....	Southeast corner Nineteenth and T streets, northwest.
One 4-way 6-inch.....	Center of Twenty-fifth street, north side M street, northwest.
One 2-way 6-inch.....	Northwest corner Twenty-fourth and M streets, northwest.
One 4-way 6-inch.....	Center of Eleventh and G streets, northwest.
One 2-way 6-inch.....	Center of Twelfth and G streets, northwest.
One 4-way 6-inch.....	Center of Tenth street, south side D street, southeast.
Do.....	Center of Third street, north side D street, northeast.
One 2-way 12-inch.....	Southwest corner Eighteenth and Boundary streets, northwest.

HYDRANTS.

There are in use in the District of Columbia 293 hydrants—244 in Washington and 49 in Georgetown. Twenty-four new ones have been erected in the place of old ones. From November 1, 1877, to June 30, 1878, 11 new hydrants have been erected—9 in Washington and 2 in Georgetown—of which the following is a correct list:

Washington.

Maryland avenue and Thirteenth-and-a-half street, southwest.
 Seventh and I streets, southwest.
 Twelfth and U streets, northwest.
 N street between Fourth and Fifth streets, northwest.
 Seventeenth and U streets, northwest.

K street between Twenty-first and Twenty-second streets, northwest.
K and North Capitol streets, northeast.
K and Fourth streets, southeast.
M and Twenty-fifth streets, northwest.

Georgetown.

Green street and Canal.
Bridge street, between West and Aqueduct streets.

The following hydrants were erected in place of old ones :

Washington.

Covington street, between Ninth and Tenth streets, northwest.
Tenth and N streets, northwest.
Fourth and G streets, southeast.
First and K streets, northwest.
N street, between Twelfth and Thirteenth streets, northwest.
Twelfth and Vermont avenue, northwest.
Third and M streets, northwest.
Third and I streets, northwest.
Washington street, between Fourth and Fifth streets, northwest.
D street, between Third and Fourth-and-a-half streets, southwest.
Massachusetts avenue, between Fourth and Fifth streets, northwest.

Georgetown.

High and Bridge streets.
Washington and Stoddard streets.
Green and Beall streets.
North and West streets.
Beall and Montgomery streets.
Road and Washington streets.
High and Market streets.
High street and Cherry alley.
High near Water street.
Congress street near canal.
Frederick and Bridge streets.
Market and Fifth streets.
Dumbarton and Monroe streets.

TAPS.

From November 1, 1877, to June 30, 1878, 396 $\frac{3}{4}$ -inch, 18 $\frac{3}{4}$ -inch, and 20 1-inch taps have been made.

MISCELLANEOUS.

689 services turned off and on for non-payment and leaks.
242 services remain off.
426 services measured and examined.
78 leaks in mains repaired.
291 services reported and repaired.
37 fountains repaired.
26, 624 times fire-plugs have been flushed.

950 times oiled.
 261 fire-plugs repaired.
 307 stop-cocks oiled.
 14 stop-cocks raised and lowered.
 12 stop-cocks repaired.
 446 hydrants repaired.
 23, 000 water-rent bills delivered.
 12, 000 tax notices delivered.

PUMPS.

There are 429 pumps in use in the District of Columbia, 3 of which were erected between November 1, 1877, and June 30, 1878, of which the following is a correct list:

Ninth and H streets, northwest.
 Louisiana avenue, between Ninth and Tenth streets, northwest.
 Seventeenth and East Capitol streets, northeast.

PUMPS REPAIRED.

There have been 619 repairs made to pumps.

Since November 1, 1877, to the 30th day of June, 1878, Potomac water was introduced into 656 houses, classified as follows, viz:

239 two stories, 16 feet and under.	1 three stories, 28 feet.
25 two stories, 17 feet.	1 three stories, 38 feet.
54 two stories, 18 feet.	1 three stories, 40 feet.
16 two stories, 19 feet.	2 four stories, 16 feet and under.
55 two stories, 20 feet.	1 four stories, 18 feet.
13 two stories, 21 feet.	1 four stories, 19 feet.
7 two stories, 22 feet.	3 four stories, 20 feet.
1 two stories, 23 feet.	4 four stories, 21 feet.
1 two stories, 24 feet.	2 four stories, 22 feet.
6 two stories, 25 feet.	2 four stories, 23 feet.
1 two stories, 26 feet.	1 four stories, 24 feet.
1 two stories, 29 feet.	6 four stories, 25 feet.
2 two stories, 30 feet.	1 four stories, 26 feet.
1 two stories, 33 feet.	1 four stories, 27 feet.
1 two stories, 34 feet.	1 four stories, 28 feet.
2 two stories, 35 feet.	1 four stories, 60 feet.
1 two stories, 39 feet.	1 five stories, 17 feet.
1 two stories, 40 feet.	1 boat-house.
54 three stories, 16 feet and under.	3 churches.
17 three stories, 17 feet.	1 candy factory.
41 three stories, 18 feet.	1 car-stable.
5 three stories, 19 feet.	1 foundry.
35 three stories, 20 feet.	1 greenhouse.
1 three stories, 21 feet.	1 medical college.
8 three stories, 22 feet.	2 offices.
4 three stories, 23 feet.	1 police court.
2 three stories, 24 feet.	5 stables.
5 three stories, 25 feet.	4 stores.
2 three stories, 26 feet.	1 water-closet.
1 three stories, 27 feet.	1 warehouse.

Statement showing the amount of money collected by the collector of taxes for the water department from December 18, 1877, to June 30, 1878.

Water-tax	\$10,621 69
Water-rent	77,614 39
Water-taps	1,017 00
Water-permits, &c.	737 50
	<hr/>
	\$89,990 58

REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 267

Expenditures of the water department from November 1, 1877, to June 30, 1878.

Office rolls	\$5,056 77
Contingent expenses of office	1,272 28
Inspectors and laborers' rolls	33,427 43
Contingent expenses of department, pipe, material, &c.	22,563 32
Advertising for office	115 82
Refunded erroneously-paid water-taxes, &c	188 60

62,624 22

TABLE A.—Showing amount of outstanding water-tax and interest on June 30, 1878, time of maturity, assessment, and whether advertised or not advertised.

When matur- ing.	Instalment.	Assessment.	Whether adver- tised or not.	Tax.	Interest.	Total.
July 1, 1866	1	July 1, 1866	Advertised	\$644 29	\$463 89	\$1,108 18
July 1, 1867	1	do	Unadvertised	75 83	54 59	130 42
	2	do	Advertised	908 06	653 80	1,561 86
	3	do	Unadvertised	76 84	55 32	132 16
July 1, 1868	1	July 1, 1867	Advertised	43 51	28 72	72 23
	2	July 1, 1866	do	1,026 89	739 36	1,766 25
	3	do	Unadvertised	76 88	55 35	132 23
	4	July 1, 1867	Advertised	43 51	28 71	72 22
July 1, 1869	1	July 1, 1868	do	65 85	39 51	105 36
	2	July 1, 1866	do	1,114 29	802 29	1,916 58
	3	do	Unadvertised	76 90	55 37	132 27
	4	July 1, 1867	Advertised	43 51	28 72	72 23
	5	July 1, 1868	do	82 93	49 76	132 69
	6	July 1, 1869	do	99 02	53 47	152 49
July 1, 1870	1	do	Unadvertised	50 15	27 08	77 23
	2	July 1, 1866	Advertised	1,214 43	874 39	2,088 82
	3	do	Unadvertised	76 90	55 37	132 27
	4	July 1, 1867	Advertised	112 79	74 44	187 23
	5	July 1, 1868	do	137 00	82 20	219 20
	6	July 1, 1869	do	138 51	74 79	213 30
	7	do	Unadvertised	50 15	27 08	77 23
July 1, 1871	1	July 1, 1870	Advertised	302 44	145 17	447 61
	2	do	Unadvertised	1 90	91	2 81
	3	July 1, 1867	Advertised	131 43	86 74	218 17
	4	do	do	195 24	117 14	312 38
	5	July 1, 1868	do	157 98	85 31	243 29
	6	July 1, 1869	do	50 16	27 08	77 24
	7	do	Unadvertised	469 98	225 59	695 57
	8	July 1, 1870	Advertised	1 90	91	2 81
	9	do	Unadvertised	441 31	185 35	626 66
	10	July 1, 1871	Advertised	27 64	11 61	39 25
July 1, 1872	1	do	Unadvertised	218 68	131 21	349 89
	2	July 1, 1868	Advertised	182 56	98 58	281 14
	3	July 1, 1869	do	50 17	27 09	77 26
	4	do	Unadvertised	545 18	261 68	806 86
	5	July 1, 1870	Advertised	1 90	91	2 81
	6	do	Unadvertised	589 52	247 60	837 12
	7	July 1, 1871	Advertised	27 66	11 61	39 27
	8	do	Unadvertised	648 32	233 39	881 71
	9	July 1, 1872	Advertised	185 22	66 68	251 90
July 1, 1873	1	do	Unadvertised	196 03	105 85	301 88
	2	July 1, 1869	Advertised	50 17	27 09	77 26
	3	do	Unadvertised	554 07	265 95	820 02
	4	July 1, 1870	Advertised	1 91	91	2 82
	5	do	Unadvertised	610 44	256 38	866 82
	6	July 1, 1871	Advertised	27 66	11 61	39 27
	7	do	Unadvertised	806 44	290 32	1,096 76
	8	July 1, 1872	Advertised	185 25	66 69	251 94
	9	do	Unadvertised	781 24	234 37	1,015 61
July 1, 1874	1	July 1, 1873	Advertised	45 29	13 59	58 88
	2	do	Unadvertised	576 34	276 64	852 98
	3	July 1, 1870	Advertised	1 91	91	2 82
	4	do	Unadvertised	706 18	296 59	1,002 77
	5	July 1, 1871	Advertised	27 67	11 62	39 29
	6	do	Unadvertised	871 33	293 68	1,165 01
	7	July 1, 1872	Advertised	185 30	66 70	252 00
	8	do	Unadvertised	968 46	290 54	1,259 00
	9	July 1, 1873	Advertised	45 31	13 59	58 90
July 1, 1875	1	do	Unadvertised	991 36	416 37	1,407 73
	2	July 1, 1871	Advertised	27 68	11 62	39 30
	3	do	Unadvertised	1,084 70	390 49	1,475 19

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TABLE A.—Showing amount of outstanding water-tax and interest, &c.—Continued.

When matur- ing.	Instalment.	Assessment.	Whether adver- tised or not.	Tax.	Interest.	Total.
July 1, 1875	4	July 1, 1872	Unadvertised	\$155 74	\$56 06	\$211 80
	3	July 1, 1873	Advertised	1,223 59	367 08	1,590 67
	3	do	Unadvertised	45 34	13 60	58 94
July 1, 1876	3	July 1, 1874	Advertised	1,309 46	471 41	1,780 87
	3	do	Unadvertised	190 06	68 42	258 48
	4	July 1, 1875	Advertised	1,595 53	478 66	2,074 19
	4	do	Unadvertised	48 45	14 53	62 98
July 1, 1877	5	do	Advertised	1,708 65	512 65	2,221 50
	5	do	Unadvertised	48 85	14 65	63 50
		Total of tax assessed to July 1, 1873		25,458 04	11,627 34	37,085 38
Oct. 15, 1873	1	October 15, 1873	Advertised	106 53	30 09	136 62
	1	do	Unadvertised	6 25	1 77	8 02
Oct. 24, 1873	1	October 24, 1873	Advertised	252 27	70 79	323 06
	1	do	Unadvertised	12 50	3 51	16 01
Nov. 15, 1873	1	November 15, 1873	Advertised	113 99	31 63	145 62
Oct. 15, 1873	2	October 15, 1873	Advertised	225 76	63 77	289 53
	2	do	Unadvertised	6 25	1 77	8 02
Oct. 24, 1873	2	October 24, 1873	Advertised	252 38	70 92	323 30
	2	do	Unadvertised	12 50	3 51	16 01
Nov. 15, 1873	2	November 15, 1873	Advertised	121 06	33 59	154 65
	2	do	Unadvertised	5 62	1 56	7 18
Jan. 12, 1874	1	January 12, 1874	Advertised	401 08	107 49	508 57
	1	do	Unadvertised	12 81	3 43	16 24
Feb. 20, 1874	1	February 20, 1874	Advertised	81 53	21 33	102 86
	1	do	Unadvertised	156 14	40 89	197 03
Aug. 15, 1874	1	August 15, 1874	Advertised	490 93	114 14	605 07
	1	do	Unadvertised	12 07	2 80	14 87
Dec. 15, 1874	1	December 15, 1874	Advertised	938 78	199 49	1,138 27
Oct. 15, 1875	3	October 15, 1875	do	428 48	121 05	549 53
Oct. 24, 1875	3	October 24, 1875	do	460 81	129 49	590 30
	3	do	Unadvertised	12 50	3 51	16 01
Nov. 15, 1875	3	November 15, 1875	Advertised	139 87	38 81	178 68
Jan. 12, 1875	2	January 12, 1874	do	444 43	119 10	563 53
	2	do	Unadvertised	12 81	3 43	16 24
Feb. 20, 1875	2	February 20, 1874	Advertised	97 06	25 40	122 46
	2	do	Unadvertised	156 14	40 89	197 03
Aug. 15, 1875	2	August 15, 1874	Advertised	599 76	139 44	739 20
Dec. 15, 1875	2	December 15, 1874	do	1,156 86	245 83	1,402 69
July 12, 1875	1	July 12, 1875	do	186 86	33 26	220 12
Sept. 1, 1875	1	September 1, 1875	do	12 68	2 15	14 83
Oct. 1, 1875	1	October 1, 1875	do	33 97	5 60	39 57
Nov. 1, 1875	1	November 1, 1875	do	584 07	93 45	677 52
	1	do	Unadvertised	14 62	2 34	16 96
Dec. 1, 1875	1	December 1, 1875	Advertised	220 75	34 22	254 97
Oct. 15, 1876	4	October 15, 1875	do	965 39	264 25	1,199 64
	4	do	Unadvertised	3 62	1 02	4 64
Oct. 24, 1876	4	October 24, 1875	Advertised	548 51	154 13	702 64
	4	do	Unadvertised	12 50	3 51	16 01
Nov. 15, 1876	4	November 15, 1875	Advertised	182 25	50 57	232 82
Jan. 12, 1876	3	January 12, 1874	do	734 71	196 90	931 61
	3	do	Unadvertised	13 29	3 55	16 84
Feb. 20, 1876	3	February 20, 1874	Advertised	129 15	33 79	162 94
	3	do	Unadvertised	156 14	40 86	197 00
Aug. 15, 1876	3	August 15, 1874	Advertised	1,031 52	239 83	1,271 35
Dec. 15, 1876	3	December 15, 1874	do	1,450 39	308 21	1,758 60
July 12, 1876	2	July 12, 1875	do	265 22	47 21	312 43
Sept. 1, 1876	2	September 1, 1875	do	27 09	4 61	31 70
Oct. 1, 1876	2	October 1, 1875	do	82 07	13 54	95 61
Nov. 1, 1876	2	November 1, 1875	do	825 97	132 16	958 13
	2	do	Unadvertised	18 08	2 89	20 97
Dec. 1, 1876	2	December 1, 1875	Advertised	300 18	46 53	346 71
Feb. 15, 1876	1	February 15, 1876	do	490 76	69 93	560 69
	1	do	Unadvertised	1 31	19	1 50
June 15, 1876	1	June 15, 1876	Advertised	297 52	36 45	333 97
	1	do	Unadvertised	6 25	76	7 01
June 20, 1876	1	June 20, 1876	Advertised	10 68	1 30	11 98
Aug. 1, 1876	1	August 1, 1876	do	197 93	22 76	220 69
	1	do	Unadvertised	11 20	1 29	12 49
Sept. 1, 1876	1	September 1, 1876	Advertised	103 46	11 38	114 84
Sept. 15, 1876	1	September 15, 1876	do	106 57	11 46	118 03
Oct. 2, 1876	1	October 2, 1876	do	152 28	5 94	158 22
Oct. 23, 1876	1	October 23, 1876	do	186 46	18 88	205 34
Dec. 1, 1876	1	December 1, 1876	do	433 11	41 15	474 26
Jan. 12, 1877	4	January 12, 1874	do	1,117 51	299 49	1,417 00
	4	do	Unadvertised	12 02	3 41	15 43

TABLE A.—Showing amount of outstanding water-tax and interest, &c.—Continued.

When matur- ing.	Instalment.	Assessment.	Whether adver- tised or not.	Tax.	Interest.	Total.
Feb. 20, 1877	4	February 20, 1874	Advertised	\$154 36	\$40 39	\$194 75
	4	do	Unadvertised	156 14	40 88	197 02
Aug. 15, 1877	4	August 15, 1874	Advertised	1,267 32	294 65	1,561 97
	4	do	Unadvertised	216 10	50 24	266 34
Dec. 15, 1877	4	December 15, 1874	Advertised	2,429 51	516 27	2,945 78
	4	do	Unadvertised	150 30	31 94	182 24
Jan. 1, 1877	3	January 1, 1875	Advertised	20 19	4 24	24 43
July 12, 1877	3	July 12, 1875	do	627 52	111 70	739 22
	3	do	Unadvertised	64 97	11 56	76 53
Sept. 1, 1877	3	September 1, 1875	Advertised	46 97	7 98	54 95
	3	do	Unadvertised	10 06	1 71	11 77
Oct. 1, 1877	3	October 1, 1875	Advertised	180 00	29 70	209 70
	3	do	Unadvertised	19 09	3 15	22 24
Nov. 1, 1877	3	November 1, 1875	Advertised	1,082 61	173 22	1,255 83
	3	do	Unadvertised	79 35	12 70	92 05
Dec. 1, 1877	3	December 1, 1875	Advertised	463 06	71 77	534 83
	3	do	Unadvertised	40 29	6 24	46 53
Feb. 15, 1877	2	February 15, 1876	Advertised	636 23	90 66	726 89
June 15, 1877	2	June 15, 1876	do	407 58	49 93	457 51
	2	do	Unadvertised	6 25	77	7 02
June 20, 1877	2	June 20, 1876	Advertised	10 70	1 30	12 00
Aug. 1, 1877	2	August 1, 1876	do	648 36	74 56	722 92
	2	do	Unadvertised	148 97	17 09	166 06
Sept. 1, 1877	2	September 1, 1876	Advertised	196 78	21 64	218 42
	2	do	Unadvertised	24 04	2 64	26 68
Sept. 15, 1877	2	September 15, 1876	Advertised	339 03	36 47	375 50
	2	do	Unadvertised	64 87	6 97	71 84
Oct. 2, 1877	2	October 2, 1876	Advertised	125 38	13 12	138 50
	2	do	Unadvertised	100 75	10 54	111 29
Oct. 23, 1877	2	October 23, 1876	Advertised	305 41	30 90	336 31
	2	do	Unadvertised	7 26	72	7 98
Dec. 1, 1877	2	December 1, 1876	Advertised	731 88	69 53	801 41
	2	do	Unadvertised	26 77	2 54	29 31
Jan. 15, 1877	1	January 15, 1877	Advertised	585 13	51 20	636 33
Mar. 1, 1877	1	March 1, 1877	do	145 42	11 63	157 05
Apr. 16, 1877	1	April 16, 1877	do	48 77	3 53	52 30
May 12, 1877	1	May 12, 1877	do	11 02	73	11 75
May 21, 1877	1	May 21, 1877	do	44 98	2 94	47 92
July 10, 1877	1	July 10, 1877	do	542 81	31 66	574 47
	1	do	Unadvertised	15 72	81	16 53
Aug. 20, 1877	1	August 20, 1877	do	7 27	38	7 65
Sept. 1, 1877	1	September 1, 1877	Advertised	86 03	4 30	90 33
	1	do	Unadvertised	33 30	1 66	34 96
Dec. 1, 1877	1	December 1, 1877	Advertised	584 53	20 46	604 99
	1	do	Unadvertised	45 32	1 59	46 91
Jan. 1, 1878	4	January 1, 1875	Advertised	32 16	6 75	38 91
	4	do	Unadvertised	11 97	2 51	14 48
July 12, 1878	4	July 12, 1875	Advertised	784 17	139 58	923 75
Sept. 1, 1878	4	September 1, 1875	Unadvertised	106 90	18 17	125 07
Oct. 1, 1878	4	October 1, 1875	do	358 98	59 23	418 21
Nov. 1, 1878	4	November 1, 1875	do	1,524 68	243 95	1,768 63
Dec. 1, 1878	4	December 1, 1875	do	902 30	139 86	1,042 16
Feb. 15, 1878	3	February 15, 1876	Advertised	679 41	96 82	776 23
	3	do	Unadvertised	146 52	20 88	167 40
June 15, 1878	3	June 15, 1876	Advertised	669 63	82 03	751 66
	3	do	Unadvertised	37 13	4 55	41 68
June 20, 1878	3	June 20, 1876	Advertised	37 45	4 55	42 00
	3	do	Unadvertised			
Aug. 1, 1878	3	August 1, 1876	do	1,329 31	152 87	1,482 18
Sept. 1, 1878	3	September 1, 1876	do	358 92	37 28	376 20
	3	do	do	375 96	61 92	637 88
	3	do	do	568 37	59 48	627 85
Oct. 2, 1878	3	October 2, 1876	do	414 55	41 94	456 49
Oct. 23, 1878	3	October 23, 1876	do	1,198 28	113 84	1,312 12
Dec. 1, 1878	3	December 1, 1876	do	549 37	48 07	597 44
Jan. 15, 1878	2	January 15, 1877	Advertised	281 72	24 65	306 37
	2	do	Unadvertised	153 52	12 28	165 80
Mar. 1, 1878	2	March 1, 1877	Advertised	12 50	1 00	13 50
	2	do	Unadvertised	140 14	10 13	150 27
Apr. 16, 1878	2	April 16, 1877	Advertised	36 67	2 65	39 32
	2	do	Unadvertised	32 33	2 21	34 54
May 12, 1878	2	May 12, 1877	Advertised	15 55	1 01	16 56
	2	do	Unadvertised	71 59	4 74	76 33
May 21, 1878	2	May 21, 1877	Advertised	562 94	32 84	595 78
July 10, 1878	2	July 10, 1877	Unadvertised	31 37	1 62	32 99
Aug. 20, 1878	2	August 20, 1877	do	158 84	7 94	166 78
Sept. 1, 1878	2	September 1, 1877	do	804 86	28 16	833 02
Dec. 1, 1878	2	December 1, 1877	do	367 60	9 19	376 79
Feb. 1, 1878	1	February 1, 1878	Advertised			

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TABLE A.—Showing amount of outstanding water-tax and interest, &c.—Continued.

When matur- ing.	Instalment.	Assessment.	Whether adver- tised or not.	Tax.	Interest.	Total.
Feb. 1, 1878	1	February 1, 1878.....	Unadvertised.....	\$249 27	\$6 23	\$255 50
Mar. 19, 1878	1	March 19, 1878.....	Advertised.....	9 27	18	9 45
Apr. 1, 1878	1	April 1, 1878.....	do.....	321 41	4 81	326 22
	1	.....do.....	Unadvertised.....	263 97	3 97	267 94
May 1, 1878	1	May 1, 1878.....	Advertised.....	307 47	3 07	310 54
	1	.....do.....	Unadvertised.....	65 93	66	65 59
Feb. 15, 1879	4	February 15, 1878.....	do.....	1,293 18	184 28	1,477 46
June 15, 1879	4	June 15, 1878.....	do.....	734 63	89 99	824 62
June 20, 1879	4	June 20, 1878.....	do.....	37 38	4 54	41 92
Aug. 1, 1879	4	August 1, 1878.....	do.....	1,352 28	155 51	1,507 79
Sept. 1, 1879	4	September 1, 1878.....	do.....	339 05	37 30	376 35
Sept. 15, 1879	4	September 15, 1878.....	do.....	583 88	62 76	646 64
Oct. 2, 1879	4	October 2, 1878.....	do.....	568 90	59 54	628 44
Oct. 23, 1879	4	October 23, 1878.....	do.....	425 23	43 02	468 25
Dec. 1, 1879	4	December 1, 1878.....	do.....	1,198 83	113 89	1,312 72
Jan. 15, 1879	3	January 15, 1877.....	do.....	1,222 08	106 93	1,329 01
Mar. 1, 1879	3	March 1, 1877.....	do.....	285 58	22 85	308 43
Apr. 16, 1879	3	April 16, 1877.....	do.....	257 43	18 62	276 05
May 12, 1879	3	May 12, 1877.....	do.....	127 06	8 64	135 70
May 21, 1879	3	May 21, 1877.....	do.....	39 56	2 60	42 16
June 1, 1879	3	June 1, 1877.....	do.....	13 10	85	13 95
July 10, 1879	3	July 10, 1877.....	do.....	586 39	34 20	620 59
Aug. 20, 1879	3	August 20, 1877.....	do.....	40 39	2 08	42 38
Sept. 1, 1879	3	September 1, 1877.....	do.....	158 84	7 94	166 78
Dec. 1, 1879	3	December 1, 1877.....	do.....	805 10	28 18	833 28
Feb. 1, 1879	3	February 1, 1878.....	do.....	1,147 95	28 70	1,176 65
Mar. 19, 1879	3	March 19, 1878.....	do.....	9 26	18	9 44
Apr. 1, 1879	3	April 1, 1878.....	do.....	1,035 08	15 52	1,050 60
May 1, 1879	2	May 1, 1878.....	do.....	484 76	4 85	489 61
Jan. 15, 1880	4	January 15, 1877.....	do.....	1,226 65	10 73	1,237 38
Mar. 1, 1880	4	March 1, 1877.....	do.....	285 75	22 86	308 61
Apr. 1, 1880	4	April 1, 1877.....	do.....	257 54	18 63	276 17
May 12, 1880	4	May 12, 1877.....	do.....	127 10	8 64	135 74
May 21, 1880	4	May 21, 1877.....	do.....	39 59	2 69	42 28
June 1, 1880	4	June 1, 1877.....	do.....	13 10	85	13 95
July 10, 1880	4	July 10, 1877.....	do.....	586 40	34 21	620 61
Aug. 20, 1880	4	August 20, 1877.....	do.....	40 32	2 22	42 54
Sept. 1, 1880	4	September 1, 1877.....	do.....	158 84	7 94	166 78
Dec. 1, 1880	4	December 1, 1877.....	do.....	805 11	28 18	833 29
Feb. 1, 1880	3	February 1, 1878.....	do.....	1,169 87	29 24	1,199 11
Mar. 19, 1880	3	March 19, 1878.....	do.....	9 26	18	9 44
Apr. 1, 1880	3	April 1, 1878.....	do.....	1,033 41	15 50	1,048 91
May 1, 1880	3	May 1, 1878.....	do.....	488 06	4 88	492 94
Feb. 1, 1881	4	February 1, 1878.....	do.....	1,169 91	29 25	1,199 16
Mar. 19, 1881	4	March 19, 1878.....	do.....	9 26	18	9 44
Apr. 1, 1881	4	April 1, 1878.....	do.....	1,033 42	15 50	1,048 92
May 1, 1881	4	May 1, 1878.....	do.....	488 06	4 88	492 94
				91,850 41	20,265 50	112,115 91

NOTE.—In this list is included the advertisement of July 15, 1878, which was prepared in June.

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TABLE B.—Showing the amount of water-main tax collected from November 1, 1877, to June 30, 1878, inclusive.

	Tax.	Interest.	Total.
ADVERTISED.			
Collected in November, 1877	\$811 63	\$205 51	\$1, 017 14
Collected in December, 1877	935 95	253 94	1, 189 89
Collected in January, 1878	810 51	187 47	997 98
Collected in February, 1878	1, 104 09	326 54	1, 431 53
Collected in March, 1878	688 88	174 16	863 04
Collected in April, 1878	411 99	121 84	533 83
Collected in May, 1878	551 81	132 16	703 97
Collected in June, 1878	185 79	49 08	234 87
Total	5, 501 55	1, 470 70	6, 972 25
UNADVERTISED.			
Collected in November, 1877	778 92	78 56	857 48
Collected in December, 1877	1, 365 89	106 61	1, 472 50
Collected in January, 1878	1, 214 24	113 51	1, 327 75
Collected in February, 1878	1, 395 63	92 56	1, 488 19
Collected in March, 1878	1, 891 91	130 09	2, 022 00
Collected in April, 1878	2, 060 98	47 01	2, 107 99
Collected in May, 1878	1, 094 63	57 72	1, 152 35
Collected in June, 1878	1, 218 46	126 53	1, 344 99
Total	11, 020 66	752 59	11, 773 25
TOTAL COLLECTIONS.			
Advertised	5, 501 55	1, 470 70	6, 972 25
Unadvertised	11, 020 66	752 59	11, 773 25
Total	16, 522 21	2, 223 29	18, 745 50

TABLE C.—Amount of water-main tax assessed from November 1, 1877, to June 30, 1878, inclusive.

Total assessment of December 1, 1877	3, 979 64
Total assessment of February 1, 1878	5, 715 77
Total assessment of April 1, 1878	5, 387 81
Total assessment of May 1, 1878	2, 134 51
Total	17, 217 73

TABLE D.—Showing the principal of the tax assessed to the District of Columbia and unpaid on June 30, 1878.

Date of assessment.	Whether ad- vertised or not.	Amount ad- vertised.	Amount un- advertised.	Total.
July 1, 1866	Advertised	\$236 62		\$236 62
July 1, 1866	Unadvertised		\$379 35	
July 1, 1869	do		175 20	
July 1, 1871	do		9 16	
July 1, 1872	do		634 35	
July 1, 1873	do		106 08	
October 24, 1873	do		50 00	
February 20, 1874	do		624 56	
August 1, 1876	do		56 79	
February 1, 1878	do		222 06	
Total				2, 257 55
Total				2, 494 17

TABLE E.—*Showing the amount assessed to the trustees of the colored schools of Washington, D. C.*

Page of assessment.	Whether advertised or not.	Amount advertised.	Amount unadvertised.	Total.
July 1, 1876			\$75 60	
July 1, 1877			125 78	
July 1, 1878			144 22	
July 1, 1879			73 97	
				\$419 57

When I took charge of the office, on December 18, 1877, I found a want of system in its management and an unnecessary large number of employees.

The number of inspectors has been reduced from 27 to 11, one of whom is detailed for clerical duty, thereby saving a large yearly expense to the District government. The District has been laid off into ten sub-districts, and each inspector is furnished with a badge, showing that he is an authorized agent of the department, a section of the map of the District showing where the water-mains, fire-plugs, hydrants, stop-cocks, and pumps are located; also, printed rules for his guidance and printed extracts from the laws relating to the water department, which enable him to furnish the water-takers with all information on the subject of water.

A "complaint-book" has been opened, in which all matters relating to repairs of service-pipes, waste of water, &c., are noted under a regular heading, and is a complete record of the daily operations of the working of the office. This book proves a valuable addition to the efficiency of the office, and will show that parties are never more than forty-eight hours behind in complying with the notices served upon them by the inspectors to correct any evil that may be complained of.

There was a large amount of water-rent in arrears, running back, in many instances, for three years, all of which has been collected, but not until, in the majority of cases, the water was cut off for non-payment.

At the present date the rents are all paid up, and I trust the assessments for water-mains in arrears will be promptly met. It will be observed that a large portion of the water-main tax has been due long since, and the property which is subject to assessment has been sold for the taxes. In every instance the District has been the purchaser.

The tax-payers have been allowed from time to time to redeem, upon the payment of the tax, accrued interest, and the expenses of advertisement and sale. This has not proved sufficient to enforce the prompt payment of the tax for laying water-mains and erecting fire-plugs, hydrants, &c.

The interest upon this tax is so extremely low, that many, who are abundantly able to pay the moderate tax levied for this purpose, prefer to let the tax rest upon their property, and to use their funds for other purposes; and, in many cases, it is only when a sale of property is made and purchasers require the lien of the tax to be removed that the water department is able to collect this tax. As the water-mains, when laid, must be paid for in cash out of the funds of the water department, it will be readily seen that if their cost is to be considered a perpetual loan to the tax-payers, it is only a question of time when the water department will cease to have funds to lay them.

The large amount of this tax outstanding prompts the question whether something more practical cannot be done to enforce its collec-

tion. It is for the honorable Commissioners to apply a remedy, if one can be found, to this defect; but I would suggest that when property has been sold, and the time of redemption has expired, steps be taken to have a deed issued to the Commissioners in trust for the water department.

I would respectfully recommend that you apply to Congress for authority to make such regulations for the charge of water-rents as will be more equitable than the existing law. For instance, under the present law, parties whose houses have the same frontage are charged the same for water for domestic purposes, although one of the houses may be only *one* room deep, and have only *one* water-spigot, while the other may be of the depth of the lot and may have any number of water-fixtures.

I also recommend that a 12-inch main be laid on First street between Massachusetts and Pennsylvania avenues, northwest, which can be done at an estimated cost of \$5,255.70. If this is done, the 36-inch main will be disconnected from the 30-inch main, and the former used for the *high-service* and the latter for the *low-service*. The laying of this pipe will greatly benefit the water-takers on Capitol Hill, for at present the water runs down from Capitol Hill to supply the low grounds at the foot of the Capitol.

I would further recommend that a 12-inch main be laid to connect Capitol Hill with the stand-pipe, which can be done at an estimated cost of \$23,800—16,800 feet of pipe being required.

This expense, as also the cost of laying the main on First street, Congress would be willing to appropriate money for, no doubt, if asked to do so, particularly as the Capitol building and grounds will be greatly benefited, for the reason that the expense of laying water-mains in front of public reservations and lowering the same at the time of grading the streets was borne by this department.

Section 198 of the Revised Statutes relating to the District of Columbia provides that "The water rates levied in Washington and Georgetown shall never be a source of revenue other than as a means of keeping up to said cities a supply of water, but shall constitute a fund *exclusively* for the maintenance and repair of the system of water distribution." I contend that, under the law, public school-houses, market-houses, and all other property owned by the District, in front of which water-mains are laid, should be credited to the water fund and charged against the fund for the maintenance of said institutions. The institutions should also pay a regular yearly water rent, which should likewise be charged and credited in a similar manner.

One of the great troubles this department has to contend with is the great quantity of water wasted by the departments of the United States. There are between 23,000,000 and 24,000,000 of gallons of water supplied daily to the cities of Washington and Georgetown, one-half of which is consumed by the United States.

If the United States Departments can be induced to cease wasting the water, there will be less complaint of the want of water by the water-takers on the high grounds.

Parties on Capitol Hill are able to get more or less water at night and on Sundays; but as soon as work commences at the navy-yard their supply is reduced to such an extent that complaints are constantly made at this office of the want of water by the residents of that section of the city. Besides, many of the employes of the United States Government Departments who live on the high grounds acknowledge that their scarcity of water is owing to the waste in the departments. If Congress does not take some action to correct this evil, an additional large main

will have to be laid from the distributing reservoir above Georgetown, to accommodate the water-takers of the District, which will cost about \$300,000. If Congress will pass a law requiring meters to be attached to the departments and fix the amount of water that each department shall be allowed to use, it may correct the evil.

In conclusion, I take pleasure in saying that the present force employed in the water department are men of intelligence and industry, and that whatever success I may have attained in the administration of the office is greatly due to their efforts.

I am, sir, your obedient servant,

THOS. C. COX,
Water Registrar.

Maj. WM. J. TWIXING, U. S. A.,
Engineer Commissioner of the District of Columbia.

APPENDIX S 3.

REPORT OF THE SURVEYOR.

SURVEYOR'S OFFICE, DISTRICT OF COLUMBIA,
Washington, D. C., November 1, 1878.

SIR: Complying with your instructions of October 18, I have the honor to submit a report of the operations of this office since the 10th November, 1877.

Since that date services as follows have been performed upon orders from property holders:

Surveys.....	446
Subdivisions made and recorded and certified plats issued.....	110

Obedient to orders from the honorable Commissioners, services have been rendered the District of Columbia as follows:

Surveys.

Squares in the city of Washington.....	2
Squares in the city of Washington for numbering houses.....	15
Lots in the city of Washington.....	5
Streets in Washington and Georgetown.....	5
Streets and roads in the county.....	6
Alleys in the city of Washington.....	14

The west line of Beatty and Hawkins's addition to Georgetown surveyed.

Examinations and reports.

Roads and streets in the county.....	2
Alleys in the city of Washington.....	13

Special assessment and pro-rata adjustment of taxes upon 232 lots, in 43 squares in Washington, was prepared for the collector of taxes of the District of Columbia.

PLATS, ETC.

Plats of subdivisions furnished superintendent assessments and taxes of the District of Columbia, 123.

Plats showing subdivisions of property on Fayette, Dumbarton, West, and Stoddert streets, Georgetown, together with list of property holders

and assessments for water-mains on these streets, have been prepared and furnished the water registrar of the District of Columbia, representing 22 squares and 124 lots.

Abstracts of title to property in Washington, 5; search of titles to property in Georgetown for water registrar, 62.

For the special information of the board of assessors, Mr. H. W. Brewer was appointed by the Commissioners in April last to survey the wharf property in Georgetown, embracing the river front lying between Rock Creek and the Aqueduct Bridge, and south of Water street.

Upon the completion of that work—to further facilitate assessments—the survey was extended to embrace the range of squares lying west of Rock Creek, and several squares in other parts of the city, where important errors were known to exist. Plats of these surveys have been prepared and placed in the hands of the board of assessors.

The squares included in the surveys are 2, 3, 4, 5, 6, 7, 8, and 9 along the Potomac; 1, 23, 24, 46, 47, 67, and 68 bordering upon Rock Creek; lands lying east of square 93 and south of West street continued; squares 12, 14, 44, 112, and parts of squares 20, 26, 48, 76, 13, 15, 18, 30, 110, and 117, lying elsewhere within the city limits.

The necessity of this work was referred to in my report for 1877, and for reasons there stated should be continued.

As an example of erroneous records and lines in Georgetown may be mentioned the west line of "Beatty and Hawkins's addition," wherein I found, by actual measurement—verified by triangulations—a deficiency of 165 feet in three-quarters of a mile, involving a loss of over 74,000 square feet of valuable ground between this line and Back street. Other important errors are known to exist, and I beg to recommend a continuance of the work until an entire resurvey of the town is accomplished and the errors eliminated or their location established.

THE COUNTY.

In my report of last year I had the honor to suggest "that a book of plats, showing all subdivisions and their areas, and all other tracts of property in the county embraced within the limits of certain roads as boundaries, be prepared and kept in this office, and that, as future subdivisions and changes in ownership occur, such changes be recorded in this book."

To the assessors such a record would be of the greatest service, enabling them at a glance to correctly fix the location of property and its proximity to public ways, and more accurately determine areas and valuation.

In this connection I further suggest, the surveyors' office being the lawful depository of surveys and plats, that descriptions of all surveys made in the county be filed in this office, where they may be duly recorded for future reference.

County property has so increased in value that the time when it must be resurveyed cannot be remote.

The recital in the old surveys of the description of the so-called "home-line," being "from the last-named bound in a straight line to the place of beginning," without specifying course or distance, is too indefinite, and often truly covers "acres, more or less," making the area as indefinite as the "home-line." The necessity of depositing in the office of the surveyor all data touching the recent surveys becomes apparent.

Referring to so much of my last annual report as relates to the defini-

tion of the boundary lines of the District, and the erection of line stones at frequent intervals, I would further repeat the recommendations then made, the experiences of the past year having abundantly demonstrated the advisability of early attention to this subject. The monuments being at present located at specified distances, it is entirely accidental if one is found where a public road crosses the boundary, or that two are visible from the same standpoint; hence, the police limits being indefinite, the execution of the law is obstructed, and, lines being doubtful, the assessment of property becomes also doubtful.

CITY.

A practice as vicious as reprehensible obtains among contractors and builders, which deprives the surveyor of legitimate fees, and is so fertile in error, so dangerous to the established street lines and lines defining private property, as to demand attention and rebuke. It is that of ordering a survey of a single lot, perhaps at a corner, perhaps in the middle of a long square, and afterward erecting a block of from 6 to 20 buildings upon the basis of this one survey. The houses, being separated by party-walls upon what is *supposed* to be the lot lines, are sold as having the true and correct frontage of the lots which they are supposed to occupy; whereas the center of the wall is seldom found upon the lot line, which not infrequently passes through the open rooms of the adjoining houses.

On the recent survey of a lot of 16 feet frontage, in the middle of a square 600 feet long, the surveyor was informed by the owner that from this single survey a block of 19 buildings would be erected. The survey involved fixing the corners of two other squares; and an aggregate measurement of over half a mile of lines, and yet but one fee could be exacted for this labor.

Instances are known where blocks, comprised of from 4 to 10 houses each, have been erected in this city during the past year without surveys.

This inexcusable negligence adds to the future labors of the surveyor, tends to obliterate street and property lines, and, necessarily, leads to litigation.

But one remedy suggests for this, which is, to require evidence that each lot has been properly surveyed before granting the permit for building.

CORNER STONES.

In 1795, the original survey of the city being completed, corner-stones had been erected at the several angles of each square, these stones constituting the datum points for future surveys. In the progress of improvements most of these original landmarks have been lost, and no record is to be found of the relation of buildings erected on corners to the corner-stones, although such records were, doubtless, kept by the surveyor.

Ten years ago many of the stones could be found in place, and the work of surveying was comparatively easy; but in the subsequent improvement of streets they have been thoughtlessly removed by contractors, who doubtless were ignorant of their value. In many instances, where they would now be of great importance, the excavation of the street slope has been carried to a distance just sufficient to displace the stone, thus leaving many squares without fixed known monuments. In other cases the stones have been carefully laid aside, and wooden fence.

posts carelessly erected in their places, rendering it difficult, or impossible, to define street lines or corners with exactness.

Such cases evidence an ignorance of the value of landmarks, or a willful disregard of the rights of others, that is really surprising.

In this connection, I have respectfully to ask that means be adopted to fix the location of any stones remaining, and that their removal or disturbance, until the surveyor has located their position by reference points, be strictly forbidden, attaching a severe penalty for any infraction of the order.

My annual report for 1877 contained suggestions relating to the re-establishment of corners of squares; later experience has fully demonstrated the necessity and propriety of those suggestions.

The absence of records and notes of surveys made by my predecessors proves a serious embarrassment to the performance of field duties that cannot be appreciated without actual experience. That large numbers of plats, survey-sheets, notes of survey, and books have been taken from this office, and are now in existence in the hands of private persons, is beyond question.

The plea that these records and notes "are private property, made for private information," when the paper upon which they are made and the services of those who made them were paid for by the District government, is too subversive of law and morals to require comment.

In conclusion, I beg leave to repeat part of the last annual report: "I cannot but call your attention to the inadequacy of the compensation of the surveyor, as compared with the arduous duties and heavy responsibilities attaching to his office," and to say that in that report the reasons given why "the status of the office" should "be established upon a more reasonable and equitable basis" exist to-day, and require no amplification here.

I have the honor to be, very respectfully, your obedient servant,
JNO. A. PARTRIDGE,
Surveyor District of Columbia.

Maj. W. J. TWINING, U. S. A.,
Engineer Commissioner of the District of Columbia.

Estimate of expenses for conducting the office of the surveyor of the District of Columbia for the eighteen months ending June 30, 1880.

For the six months ending June 30, 1879:	
Books, stationery, fuel, and other contingencies.....	\$465
Salaries of surveyor and employés.....	3,950
Total for six months ending June 30, 1879.....	4,415
For fiscal year ending June 30, 1880:	
Books, stationery, fuel, and other contingencies.....	930
Salaries of surveyor and employés.....	7,900
Total for fiscal year ending June 30, 1880.....	8,830
Six months ending June 30, 1879.....	4,415
Fiscal year ending June 30, 1880.....	8,830
Total for eighteen months.....	13,245

Estimate for field operations recommended in annual report of November, 1878.

For re-establishing corner-stones to squares and for defining the boundary...	\$6,000
For continuation of surveys in Georgetown.....	5,000
Total for field operations.....	11,000
For surveyor's office proper.....	13,245
For field operations.....	11,000
	24,245

Respectfully submitted.

JNO. A. PARTRIDGE,
Surveyor of the District of Columbia.

APPENDIX S 4.

REPORT OF THE PARKING COMMISSION

WASHINGTON, D. C., November 11, 1878.

SIR: In accordance with your request, the parking commission transmit the following report of operations from November 1, 1877 (the date of last report), to June 30, 1878.

During that time 2,796 trees have been planted, 92 old decaying trees have been removed, and 511 holes or pits prepared for planting.

This represents only a portion of the work performed. The labor required in the ordinary care and keep of the trees already planted, now numbering nearly 50,000; the repairs of tree-boxes; pruning and dressing trees infected with insects; mowing and weeding parkings and reservations; the cost of material for securing trees—nails, stakes, &c.—form a large amount of the expenditures of the commission.

We also submit, as requested, the estimates for the next fiscal year, as follows:

For digging and preparing tree-holes and for the purchase and planting of trees.....	\$15,000
Keeping tree-boxes in repair, including labor, purchase of stakes, straps, nails, &c.....	5,000
For cultivating, pruning, watering, and general care of trees, parkings, and reservations, removing old trees and <i>débris</i>	4,000
Paving around trees.....	1,000
Whitewashing tree-boxes (one coat).....	1,600
In all.....	26,600

It is impossible to foresee the necessities that may arise, involving additional expenses; for example, the severe storms of the 5th, 6th, and 10th days of last August resulted in wide-spread injury to the trees and tree-boxes throughout all parts of the city. Many hundreds of trees were prostrated, and several thousands of boxes were more or less broken and displaced. An extra force had to be detailed to repair these disasters, and although only a few trees were actually destroyed, the boxes were utterly wrecked. This occasioned an unlooked-for expenditure of over \$2,500, the repairs not being wholly completed up to the present time.

In many parts of the city great inconveniences to pedestrians arise from trees left standing in the sidewalks. Some of these old relics are isolated near the center of the thoroughfare, and should be removed.

They are mostly old, inferior, and unhealthy. They interfere with the growth of recent plantings, which now afford shade, so that there is no reason why these older and superseded trees should longer be allowed to obstruct the promenades and impair the regularity and beauty of the streets.

Notwithstanding that the holes prepared for the trees have been unusually large, and that the soil has been carefully selected, many of the earlier-planted lines show symptoms of having occupied the entire mass with roots.

Over the most part of the city the streets have either been graded down or filled up, so that the original loamy surface no longer exists. Where holes have been excavated in hard, sterile clay, through which roots cannot penetrate to any extent, the trees have no support beyond that furnished in the comparatively limited space originally prepared, and after this has become filled with roots the trees naturally show diminished vigor consequent upon a lack of nutriment. This weakness is more conspicuous during dry summer periods, and will increase with time.

As a remedy it is suggested that an extension to the excavation be made by forming a trench 30 inches in width, and of sufficient depth, between the curbstone and the pavement, extending from tree to tree, excepting a space of 6 or 8 feet in width centrally between the trees, as a means of communication with the street. This arrangement has been adopted on some streets, with evident benefit to the trees and no inconvenience to the public. This narrow strip will ultimately be covered with grass, which can readily be kept closely mown, forming a larger surface for the absorption and retention of water to the roots, and, so far as it extends, adding to the verdant appearance of the city. The bricks now covering this space could be used at other parts where needed, and would materially pay for the cost of the proposed alteration.

The tree boxes are a heavy item in the list of expenses. At least one-half of those now in use can be removed from the trees, as they are no longer required except as a protection from horses which are so commonly left on the streets without attendants. When the trees attain to a size that supports are not needed, the boxes are decidedly injurious, as they prevent the trees from swaying to and fro with the wind, and are consequently unable to recover a perpendicular position, which their elasticity enables them to do if not counteracted by the rigidity of the box. It is observed that those trees which are without boxes are not so liable to injury as are those furnished with these guards.

We would therefore repeat a former suggestion, viz, that rings be provided in the curbstones for hitching horses, and enforce the rule that no horses should be left on the street unattended or unfastened. These rings should be placed so that the trees could not be reached by animals attached to them.

We have the honor to be, your obedient servants,

WM. R. SMITH.
WILLIAM SAUNDERS.
JOHN SAUL.

Maj. W. J. TWINING,

Engineer Commissioner of the District of Columbia.

APPENDIX S 5.

REPORT OF THE SUPERINTENDENT OF REPAIRS.

ENGINEER'S OFFICE, DISTRICT OF COLUMBIA,
Washington, October 15, 1878.

SIR: I have the honor to submit a report of the operations of this office from November 15, 1877, to June 30, 1878, inclusive, and also a supplemental report from June 30, 1878, to October 1, 1878.

The various repairs made under my supervision have been thorough and systematic; and a large amount of work has been executed upon the streets, alleys, sewers, sewer-traps, bridges, and foot-pavements of a permanent and substantial character. As a sanitary measure, increased work and care has been taken in cleansing the streets, alleys, and sewers, and its effect has been felt in the healthfulness of the city.

SEWERS.

The work of cleaning sewers has been regular and systematic, and repairs have been made in them promptly when discovered. A large amount of work has been done upon the various lines resulting from defective work heretofore done, and some from the unusual and destructive force of floods. In this connection I would respectfully call your attention to the old culvert under squares Nos. 379, 380, 381, 382. It should be, during the cold winter months, cleaned, sewer, and filled up. Openings for this purpose (properly barricaded) might be made in the foot-pavements, thus not destroying the paved carriage-way of the avenue. It seems to me to be almost a necessity to make this locality safe and healthy before another period of hot weather.

Several lines of new sewer have been laid by me during the past year, amounting to 3,800 feet of 12, 15, 18, and 24 inches in diameter.

SEWER-TRAPS.

The sewer-traps have been cleaned 12 times during the 11 months past, at the rate of about 42 traps per day, there being on an average ²² working days in a month, and during the period of 11 months at 242 days, making the total number of traps cleaned 10,164. Many of them have been repaired with new bottoms and thoroughly purged with cement. Quite a large number have been found to have no connection with sewers. The traps were in proper position, with but one or more lengths of pipe butting up against solid earth. Such have been properly connected with nearest sewer.

ALLEYS.

The alleys, such as are embraced in the contract with Mr. Fowler, have been cleaned once every two weeks up to the 1st of September, and once a week during the months of September and October by special order of the Commissioners.

The work has been satisfactorily performed, and few complaints have been made, and those for the removal of filth or *débris* accumulating in the intervals between the periods of cleaning. A very large number of the paved alleys have been repaired since my last report, rendering them more easy to clean, and, therefore, in a better sanitary condition. Many of the unimproved alleys have been during the past summer freed from filth, garbage, and stagnant water by filling and deodorizing with fresh and heretofore unbroken earth. A great many heretofore unim-

proved have been graded and paved with cobble-stones, with center gutter-stone, upon a good bed of gravel, and I may safely say they are now in a better condition than they have been for several years.

STREETS AND AVENUES.

The work of sweeping and cleaning the streets has been regularly and satisfactorily performed by Mr. Wright, the contractor. A large amount of work has been done in repairing defective places, in both the roadway and foot pavements, occasioned by breaks in sewers and traps and water-mains, as well as bad washouts from heavy floods.

Many of the most defective road-beds of paved wood are now about to be replaced by either asphaltum or stone pavements, which will make them more desirable, healthy, and durable. I have caused the intersections of many of the streets where the old and new grades did not conform to be sloped down so as to make the crossing safe and easy. I have laid a large amount of cobble gutters, aggregating thousands of square yards, the stone for which, as well as that used in paving the alleys, both in repairs and new works, has been obtained without any call upon the District for its purchase, having been gathered up in the progress of the work in various sections of the city, 1,500 loads having been thus obtained, of which I have now on hand about 300 loads.

I call your attention to the accompanying tabular statements, marked A, B, and C.

Table A showing the cost of labor and materials, and the character of the work upon which it was expended, during the period embraced from November 15, 1877, to June 30, 1878.

Table B showing the cost of labor and materials, and the character of the work upon which it was expended, during the period embraced between June 30, 1878, and October 1, 1878.

Table C showing amount of appropriations, general and special, and expenditures for labor, from November 15, 1877, to June 30, 1878, and from June 30, 1878, to October 1, 1878.

A reference to this last table will show the several general and special appropriations allowed me in the several periods indicated, and from which it will be seen that there is an unexpended balance of \$6,242.72.

Very respectfully,

E. M. CHAPIN,
Superintendent of Repairs.

Maj. W. J. TWINING,
*Corps of Engineers, U. S. A.,
Commissioner of the District of Columbia.*

A.—Statement showing character of work and cost of labor and materials from November 15, 1877, to June 30, 1878, inclusive.

Nature of work.	Labor.	Material.	Total.
Salaries and expenses of office	\$1, 857 55	.....	\$1, 857 55
Miscellaneous expenses	449 30	.....	449 30
Cleaning traps	3, 022 31	.....	3, 022 31
Cleaning sewers	5, 569 00	.....	5, 569 00
Repairing traps	946 41	\$300 74	1, 247 15
Repairing and building sewers	2, 051 82	2, 813 20	4, 865 02
Repairing streets, avenues, and alleys	16, 770 07	1, 367 96	18, 138 03
Cleaning streets, gutters, &c	295 00	.....	295 00
Cleaning streets, gutters, &c., with chain-gang	1, 801 22	1, 801 22
Repairing bridges	88 12	29 30	117 42
Total	32, 850 80	4, 511 20	37, 362 00

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B.—Statement showing character of work and cost of labor and materials from June 30, 1878, to October 1, 1878.

Nature of work.	Labor.	Material.	Total.
Salaries and expenses of office.....	\$1,233 56	.....	\$1,233 56
Miscellaneous expenses.....	185 75	.....	185 75
Cleaning traps.....	1,209 08	.....	1,209 08
Cleaning sewers.....	2,758 08	.....	2,758 08
Repairing traps.....	395 13	\$228 99	624 12
Repairing and building sewers.....	728 93	1,018 02	1,746 95
Repairing streets, avenues, and alleys.....	5,972 29	1,157 58	7,129 87
Cleaning streets, gutters, &c.....	1,404 41	.....	1,404 41
Cleaning streets, gutters, &c., with chain-gang.....	.....	.....	.....
Repairing bridges.....	111 75	731 28	843 03
Total.....	13,998 98	3,135 87	17,134 85

C.—Statement showing amount of appropriations and expenditures for labor from November 15, 1877, to June 30, 1878, and from June 30, 1878, to October 1, 1878.

Amount allowed for labor, \$55,000 per annum, being pro rata for 7½ months from November 15, 1877, to June 30, 1878.....	\$34,374 97
Allowance for extraordinary work requiring additional force.....	1,308 30
Total allowance to June 30, 1878.....	35,683 27
Total expenditures to June 30, 1878.....	\$32,850 80
From which deduct salaries and expenses of office.....	1,857 55
Giving amount expended for labor.....	30,993 25
Amount unexpended.....	4,690 02
Amount allowed for labor from June 30, 1878, to October 1, 1878—\$4,000 per month, three months.....	12,000 00
Allowance for extraordinary work requiring additional force.....	2,318 12
Total allowance to October 1, 1878.....	14,318 12
Total expenditures from June 30 to October 1, 1878.....	13,998 98
From which deduct salaries and expenses of office.....	1,233 56
Giving amount expended for labor.....	12,765 42
Amount unexpended.....	1,552 70
Total amount of allowance unexpended.....	6,242 72

APPENDIX S 6.

REPORT OF THE SUPERINTENDENT OF LAMPS.

ENGINEER'S OFFICE, DISTRICT COLUMBIA.

Washington, October 15, 1878.

SIR: I have the honor to submit my report of the operations of this office and expenditures incurred from October 31, 1877, to June 30, 1878, showing a total expenditure of \$102,128.56.

The law regulating the number of hours which the lamps in this city shall be lighted has been fully complied with by the Washington Gas.

Light Company, and every facility has been given this office for the erection of lamps by the extension of their mains. The number of lamps in the northeastern section of the city has been largely increased during the past year. This was deemed necessary so as to afford light and additional protection to persons living in that section, in consequence of the many depredations which have been committed in that locality during the past year.

A large saving has been effected in the lighting of the streets by the new contract made with the Washington Gas-Light Company, by which the price of gas and cost of lighting and repairs have been largely reduced, being a saving to the city over last year of \$18,000.

The lamps have been extended as far as the improvements required, and the demand for lamps is now steadily decreasing, except in isolated portions of the city, where no gas-mains have been laid, and beyond the line of continuous improvement.

I would respectfully request that the attention of the police authorities be called to the great destruction of glass, and often lamps, by the boys with a noiseless weapon known as a "bean-shooter;" and I would also respectfully recommend that the attention of the citizens be called to the waste of public property, and that they be requested to protect the lamps in their immediate neighborhood; and if they will not protect them, I would ask authority to remove the lamps and burners until such time as they will give them the proper protection.

The size of the service-pipes leading to the lamps has been increased in size by the Washington Gas-Light Company without cost to the city, so as to prevent the great annoyance of dry-stoppage in the pipes.

I would also call your attention to the large number of surplus lamps on some of the avenues, erected and formerly lighted by the general government; and I would respectfully recommend that they be removed and used for the purpose of lighting streets where lamps are needed.

I would also call your attention to the bad effects of granting permits for the erection of awnings without a proviso that the street-lamp shall not be interfered with. In many cases the lamps are rendered entirely useless, especially on the principal business streets; and it is impossible to convict those parties after arrest, as they hold a permit from this office, and the only way to remedy this evil is to make them remove the awning from the lamp.

I would also call your attention to the great want of street-signs. The present mode has become a source of great annoyance, as they have to be removed to clean the lamps, and the lamp-lighter either breaks or misplaces them; and I would suggest that some other mode be devised to make them a permanent fixture to the lamp, as they are of great value to the many strangers who visit our city on account of the manner in which the avenues cross the streets. I would also state that there is still a large number of lamps which the city is lighting, and which properly belong to the office of Public Buildings and Grounds.

In Georgetown, lamps have been extended on High street to the boundary. The demand for lamps in this city is very small, as the gas company of said city seldom extend their mains, except where a large consumption of gas is guaranteed from private sources. This company also reduced the price of gas to the District of Columbia, upon a request from this office, 50 cents per thousand cubic feet, which will be a saving of \$1,500 per annum, making a saving on street-lamps of the District of Columbia over last year of \$20,000.

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TABULAR STATEMENT OF EXPENDITURES FOR LAMPS AND GAS FROM OCTOBER 31, 1877, TO JUNE 30, 1878.

Washington City.

Gas for street-lamps	\$85,691 43
Gas for District offices	477 73
Gas for police court	42 35
Gas for school-houses	555 01
Gas for station-houses	1,286 02
Gas for market-houses	749 11
90 lamp-posts purchased	571 91
140 lanterns purchased	667 00
For service-pipe and fittings	741 69
Repairs incident to improvement	33 53
	<hr/>
	90,816 13

Georgetown, D. C.

Gas for street-lamps	9,296 30
Gas for market-houses	143 21
Gas for station-houses	111 92
Gas for pump-house	57 15
2 lamp-posts purchased	13 70
26 lanterns purchased	120 00
Glass and globes	78 00
Repairs of tin-work	124 00
Matches	28 50
Salaries of lamp-lighters	1,340 00
	<hr/>
	102,128 56

Number of lamps in Washington	3,537
Number of lamps in Georgetown	374
	<hr/>
Total in District of Columbia	3,911

TABULAR STATEMENT OF EXPENDITURES FOR LAMPS AND GAS FROM JUNE 30, 1878, TO SEPTEMBER 30, 1878.

Washington City.

Gas for streets	\$22,354 65
Gas for District offices	131 84
Gas for police court	20 26
Gas for school-houses	121 84
Gas for station-houses	410 91
Gas for market-houses	230 88
Gas for health office	
25 lampposts purchased	158 85
53 lamps purchased	217 50
Service-pipe and fittings	157 77
Repairs incidental to improvement	31 40
	<hr/>
	29,835 90

Georgetown, D. C.

Gas for streets	\$2,734 14
Gas for market-houses	37 50
Gas for station-houses	21 25
Gas for pump-houses	26 50
14 lamps purchased	63 00
Glass and globes	13 65
Tin repairs	46 74
Matches	13 50
Salaries of lamplighters	510 00
	<hr/>
	3,466 25

Estimate of gas for public offices and streets, and repairs of lamps, for the cities of Washington and Georgetown for fiscal year ending June 30, 1880.

Gas for street-lamps and public offices.....	\$132,000
Erecting new lamps and repairs.....	4,000
Total	136,000

APPENDIX S 7.

SPECIFICATIONS AND SCHEDULE OF BIDS FOR LAYING PAVEMENTS.

SPECIFICATIONS FOR STONE-BLOCK PAVEMENT. (BIDS OPENED AUGUST 31, 1878.)

1. The stone blocks are to be of durable and uniform quality, measuring on the face not less than six (6) inches nor more than eight (8) inches in length, and not less than three (3) inches nor more than four and one-half (4½) inches in width, and in depth not less than five and one-half (5½) inches nor more than six (6) inches; all blocks in transverse measurement at the base to be not more than one and one-half (1½) inches less than on the face; but no block on the base shall be of less width than three (3) inches, and all blocks must be, in all respects, equal to the specimen blocks submitted with the contractor's bid.

2. The blocks will be carefully inspected after they are brought on the line of the work, and all blocks which, in quality and dimensions, do not conform strictly to these specifications will be rejected, and must be *immediately removed from the line of the work.*

3. Contractors will be required to furnish such laborers as may be necessary to aid the inspector in the examination and culling of the blocks; and in case the contractors shall neglect or refuse so to do, such laborers as, in the opinion of the engineer commissioner, may be necessary will be employed, and the expense incurred will be deducted and paid out of any money then due, or which thereafter may become due the contractors. The blocks may be of any syenite or granite, equal in hardness to what is known as Quincy granite; but hard, basaltic stone, that will take a smooth polish under traffic, will not be used.

4. All wood blocks, &c., necessary to be removed, shall be taken up and removed immediately from the line of the work. The subsoil or other matter is then to be excavated and removed to the depth of twelve and one-half (12½) inches below the top line of the proposed new pavements, when fully rammed. Should there be any spongy material or vegetable matter in the bed thus prepared, all such material will be removed, and the space filled with clean gravel or sand. Care must be taken in excavating to preserve the proper crown, which will be sensibly the same as at present where the street is paved with wood or stone blocks. All holes and inequalities to be filled to a proper level with sand or gravel only; such filling to be well and faithfully compacted by rolling or ramming.

5. Upon the foundation as above is to be laid a bed of concrete of hydraulic cement, six (6) inches in thickness, to be made as follows: One measure of best quality freshly-burned Rosendale cement and two of clear sharp sand, free from clay, will be thoroughly mixed, dry, and then made into a mortar with the least possible amount of water; broken stone or brick, thoroughly cleaned from dust and dirt, drenched with water, but containing no loose water in the heap, will then be incorporated immediately with the mortar, in such quantities as will give a surplus of mortar when rammed. This proportion, when ascertained, will be regulated by measure. Each batch of concrete will be rapidly mixed

and spread, and will at once be thoroughly compacted by ramming until free mortar appears upon the surface. The whole operation of mixing and laying each batch will be performed as expeditiously as possible, with the use of a sufficient number of skilled men. No gravel will be used in the concrete, but only angular fragments of stone or brick, having rough faces obtained by fracture, and measuring not more than two (2) inches in their largest dimensions. The upper surface will be made exactly parallel with the surface of the pavement to be laid, and must be protected from the action of the sun and wind until set. Upon this will be laid a bed of fine sharp sand, thoroughly dry and hot, one and one-half (1½) inches in thickness, to serve as a bed for the blocks, which will be laid directly upon and embedded in it, with close joints. The stone blocks are to be laid at right angles with the line of the street, with such crown as the engineer commissioner may direct; each course to be of blocks of an uniform width and depth, and so laid that all longitudinal joints shall be broken by a lap of at least two (2) inches. When thus laid the blocks shall be immediately covered with clean fine sand in proper quantities, and raked until all the joints become filled therewith, and the blocks will then be carefully rammed to a firm unyielding bed, with uniform surface, and with proper grade and crown. There will then be poured into the joints, at a temperature of 300° Fahrenheit, paving cement of proper consistency, to be approved by the engineer commissioner, to be obtained by the direct distillation of coal tar, and to be the residuum therefrom. The cement required is ordinarily numbered between *four* and *five* at the manufactory. It will be poured into the joints of the pavement until the sand beneath and between the blocks will absorb no more, and the joints are filled flush with the upper surface of the pavement.

Schedule of bids received and opened, August 3, 1878, for paving Seventh street between D and Q streets, northwest, with granite blocks, &c.

Number.	Names.	20,152 square yards granite blocks.		Remarks.
		Price per yard.	Total cost.	
1	Carmody, Simon	\$2 37	\$47,760 24	
2	Gleason, Andrew, and Ed. Kelley	2 61	52,596 72	
3	McMahon, E., and Green, J. C.	2 65	53,402 80	
4	Ross, W. L.	2 65	53,402 80	Richmond granite.
	Do	2 79½	56,324 84	Cape Ann granite.
5	Mohler, William H., & Co.	2 69	54,208 88	
6	Johnson, Jos., and Nolan, M. J.	2 69	54,208 88	
7	Williams & Limber	2 70	54,410 40	
8	Taylor, Jonathan	2 70	55,014 96	
9	Kirby, Thomas	2 73	55,418 00	
10	Neitz, George, and Joyce, Thomas	2 75	55,418 00	Richmond granite.
	Do	2 79	56,224 08	Maine granite.
	Do	2 79	56,246 88	Cape Ann granite.
11	McGowan, M. A., and Downing, W. B.	2 85	65,494 00	
12	Buckley, William, and Atlee, G. V.	2 80	56,425 60	
13	Eslin, Charles H.	2 82	56,828 64	
14	Dramey, F. M.	2 85	57,433 20	
	Do	2 87½	57,939 70	
15	Cranford, Hoffman & Filbert	3 00	60,456 00	Special.
16	Statford, J. G.	2 93	59,045 36	
17	Murdoch, W. C.	2 97	59,851 44	
18	Bullock, George A.	3 02	60,850 00	
19	Abrams, G. B., and Camp, J. W.	3 06	61,665 12	
	Do	3 12	63,074 24	
20	Frell & McNamee	3 22	66,904 64	
21	O'Hare & Brennan	3 20	64,486 40	
22	Birch, Henry	3 22	64,889 44	
	Do	3 27	65,897 04	
23	McKnight, J. W.	3 62	72,950 24	Informal.
24	Hess, J. C.			Informal.
25	McAnn, Thomas			Informal.
26	Gndet, Charles			Informal.

SPECIFICATIONS FOR ASPHALTUM PAVEMENTS. (BIDS OPENED AUGUST 15, 1878.)

1. The sand beneath the present wood pavement, and all other material necessary to be removed, must be removed from the street; soft or spongy places, not affording a firm foundation, must be dug out and re-filled with good earth, well rammed, and the entire road-bed must be thoroughly rolled with a heavy steam-roller.

2. Upon the foundation as above is to be laid a bed of concrete of hydraulic cement, six inches in thickness, to be made as follows: One measure of best quality freshly-burned Rosendale cement and two of clear, sharp sand, free from clay, will be thoroughly mixed, dry, and then made into a mortar with the least possible amount of water; broken stone or brick, thoroughly cleaned from dust and dirt, drenched with water, but containing no loose water in the heap, will then be incorporated immediately with the mortar, in such quantities as will give a surplus of mortar when rammed. This proportion, when ascertained, will be regulated by measure. Each batch of concrete will be rapidly mixed and spread, and will at once be thoroughly compacted by ramming until free mortar appears upon the surface. The whole operation of mixing and laying each batch will be performed as expeditiously as possible, with the use of a sufficient number of skilled men. No gravel will be used in the concrete, but only angular fragments of stone or brick, having rough faces obtained by fracture, and measuring not more than two inches in their largest dimensions. The upper surface will be made exactly parallel with the surface of the pavement to be laid, and must be protected from the action of the sun and wind until set. Upon this base will be laid the wearing surface or pavement proper, the basis of which, or paving cement, shall be pure asphaltum, unmixed with any of the products of coal-tar.

3. Where the pavement is laid adjacent to the track of a street railway one row of paving blocks of granite or syenite will be laid next the track, alternating as headers and stretchers, with a foundation of bituminous concrete, extending to the depth of the bottom of the sleepers. Where the pavement joins an existing wood pavement a three-inch pine plank will be set on edge between the two, and both pavements fitted well up against it. The stone blocks are to be of a durable and uniform quality, measuring on the face not less than six (6) inches nor more than eight (8) inches in length, and not less than three (3) inches nor more than four and one-half (4½) inches in width, and in depth not less than five (5) inches nor more than six (6) inches; all blocks in transverse measurement at the base to be not more than one and one-half (1½) inches less than on the face; but no block on the base shall be of less width than three (3) inches, and all blocks must be, in all respects, equal to the specimen blocks submitted with the contractor's bid. The blocks will be carefully inspected after they are brought on the line of the work, and all blocks which, in quality and dimensions, do not conform strictly to these specifications will be rejected, and must be *immediately removed from the line of the work*. Contractors will be required to furnish such laborers as may be necessary to aid the inspector in the examination and culling of the blocks; and in case the contractors shall neglect or refuse so to do, such laborers as, in the opinion of the engineer commissioner, may be necessary, will be employed, and the expense incurred will be deducted and paid out of any money then due, or which thereafter may become due the contractors. The blocks may be of any syenite or granite, equal in hardness to what is known as Quincy granite; but hard, basaltic stone, that will take a smooth polish under traffic, will not be used.

Schedule of bids received and opened August 15, 1877, for laying asphaltum pavements in the city of Washington, D. C.

Number.	Names.	Fourteenth street between H and Bonnday, 23,721 square yards.		East Capitol between First and Ninth streets, east, 10,100 square yards.		Number of gallons of asphaltum of white yard composition.	Remarks.
		Price per yard.	Total cost.	Price per yard.	Total cost.		
1	Murdoch, W. C.	\$1 97½	\$47,046 70	\$2 04½	\$20,679 75	50 to 70	Sand, stone dust, residuum petroleum.
	Do	2 07	49,247 80	2 12	21,412 00	40 to 60	Sand, stone dust, paraffine oil.
2	Gleason & Kelley	2 14½	52,000 00	2 14½	21,664 50	49	82 per cent. asphalt, sand, stone dust, residuum petroleum.
	Do	2 19	52,102 20	2 19	22,119 00	49	82 per cent. asphalt, sand, stone dust, cement, residuum petroleum.
3	Crauford, Hoffman & Filbert	2 19	52,102 20	2 19	22,119 00	Not given.	Sand of two qualities.
	Do	2 31	54,957 21	2 31	23,317 00	do	Two parts of fine sand and one part gneiss or blue-stone dust, cement, sulphur and petroleum.
	Do	2 47	58,763 77	2 47	24,947 00	do	Two qualities of limestone dust, cement, lime, sulphur, and petroleum.
4	Draney & Phillips	2 19	52,102 20	2 19	22,119 00	70	Fine sand and powdered limestone dust, residuum petroleum.
5	Williams, Joseph	2 20	52,340 20	2 39	20,093 00	About 60	Fine sand and powdered limestone dust, cement, asphaltic pitch and oil.
6	Baldwin, J. S., & Co.	2 28½	54,362 43	2 28½	23,135 75	do	Sand, asphaltic pitch and oil.
	Do	2 30	54,719 30	2 30	23,750 00	do	Will do East Capitol street for \$2,28½ if both streets are awarded to them.
7	Pellatier & Davis	2 33½	55,551 98	2 33½	22,583 05	50 to 54	No written specifications.
8	Taylor, Jonathan	2 38½	59,120 62	2 40	25,698 50	do	One part sharp and one part flat sand, residuum petroleum.
	Do	2 43	59,808 80	2 44	26,644 00	do	Sharp and flat sand, limestone dust, cement, residuum petroleum.
9	Bailey French Paying Company	2 35	56,860 44	2 44	24,644 00	60 to 65	75 to 80 per cent. asphaltum, asphaltic oil and oil of pitch.
10	Grant & Kirby	2 39	58,578 45	2 55	25,755 00	do	Sand, Peckskill gravel, limestone.
11	Davies, W. E., & Co.	2 43	58,578 45	2 49	25,149 00	do	Sand, stone dust, cement, and petroleum.
12	Abrams & Lewis	2 49	59,229 50	2 65	26,765 00	70	Do.
13	Birch, Henry, & Co.	2 63	62,570 33				Nonchalant ruck.
14	Thompson, James E.						Informal.
15	Guldet, Charles						

SPECIFICATIONS FOR LAYING ASPHALTUM PAVEMENTS. (BIDS OPENED OCTOBER 19, 1878.)

1. Asphaltum pavements will be two and one-half ($2\frac{1}{2}$) inches in thickness when compressed, with a base of hydraulic cement-concrete six inches in depth.

2. The sand beneath the present wood pavement, and all other material necessary to be removed, must be removed from the street; soft or spongy places, not affording a firm foundation, must be dug out and re-filled with good earth, well rammed, and the entire road-bed must be thoroughly rolled with a heavy steam roller.

Upon the foundation as above is to be laid a bed of hydraulic cement-concrete six inches in thickness, to be made as follows: One measure of best quality freshly-burned Rosendale cement, and two of clear, sharp sand, free from clay, will be thoroughly mixed, dry, and then made into a mortar with the least possible amount of water; broken stone or brick, thoroughly cleaned from dust and dirt, drenched with water, but containing no loose water in the heap, will then be incorporated immediately with the mortar in such quantities as will give a surplus of mortar when rammed. This proportion, when ascertained, will be regulated by measure. Each batch of concrete will be rapidly mixed and spread, and will at once be thoroughly compacted by ramming until free mortar appears upon the surface. The whole operation of mixing and laying each batch will be performed as expeditiously as possible, with the use of a sufficient number of skilled men. No gravel will be used in the concrete, but only angular fragments of stone or brick, having rough faces obtained by fracture, and measuring not more than two inches in their largest dimensions. The upper surface will be made exactly parallel with the surface of the pavement to be laid, and must be protected from the action of the sun and wind until set. Upon this base will be laid the wearing surface or pavement proper, the basis of which, or paving-cement, shall be pure asphaltum, unmixed with any of the products of coal-tar.

3. Where the pavement is laid adjacent to the track of a street railway one row of paving-blocks of granite or syenite will be laid next the track, alternating as headers and stretchers, with a foundation of bituminous concrete extending to the depth of the bottom of the cross-ties. This foundation will consist of small broken stone, clean, sharp sand, and paving cement of coal-tar from direct distillation of the consistency usually numbered between four and five. The ingredients and their relative proportions of this foundation will be such as to constitute a solid base of broken stone, the voids of which are filled with sand and paving cement, and must be approved by the Engineer Commissioner.

Where the pavement joins an existing wood pavement, a three-inch pine plank will be set on edge between the two, and both pavements fitted well up against it. The stone blocks are to be of a durable and uniform quality, selected for this purpose, measuring on the face not less than six (6) inches nor more than ten (10) inches in length, and not less than three (3) inches nor more than four and one-half ($4\frac{1}{2}$) inches in width, and in depth not less than five (5) inches nor more than six (6) inches; all blocks in transverse measurement at the base to be not more than one and one-half ($1\frac{1}{2}$) inches less than on the face, but no block on the base shall be of less width than three (3) inches; and all blocks must be, in all respects, equal to the specimen block submitted with the contractor's bid. The blocks will be carefully inspected after they are brought on the line of the work, and all blocks which, in quality and di-

mensions, do not conform strictly to these specifications will be rejected, and must be immediately removed from the line of the work. Contractors will be required to furnish such laborers as may be necessary to aid the inspector in the examination and culling of the blocks; and in case the contractors shall neglect or refuse so to do, such laborers as, in the opinion of the Engineer Commissioner, may be necessary will be employed, and the expense incurred will be deducted and paid out of any money then due or which thereafter may become due the contractors. The blocks may be of any syenite or granite, equal in hardness to what is known as Quincy granite; but hard, basaltic stone that will take a smooth polish under traffic will not be used.

SPECIFICATIONS FOR LAYING COMPRESSED ASPHALT BLOCK PAVEMENT.
(BIDS OPENED OCTOBER 19, 1878.)

The asphalt blocks will be of a durable and uniform quality, measuring twelve (12) inches by four (4) inches by five (5) inches, and equal in every respect to the specimen block on file in this office.

This pavement will be laid in every respect the same as stone block pavements, except that the blocks will be fitted together so as to leave no space whatever in the joints, and the filling of gravel and coal-tar will be omitted.

SPECIFICATIONS FOR LAYING GRANITE BLOCK PAVEMENT. (BIDS
OPENED OCTOBER 19, 1878.)

1. The granite-block pavement will be laid on a foundation of gravel and sand, with filling of hot paving-cement from coal-tar.

2. The stone-blocks are to be of a durable and uniform quality, measuring on the face not less than six (6) inches nor more than eight (8) inches in length, and not less than three (3) inches nor more than four and one-half (4½) inches in width, and in depth not less than five and one-half (5½) inches nor more than six (6) inches; all blocks in transverse measurement at the base to be not more than one and one-half (1½) inches less than on the face; but no block on the base shall be of less width than three (3) inches, and all blocks must be in all respects equal to the specimen blocks submitted with the contractor's bid.

3. The blocks will be carefully inspected after they are brought on the line of the work, and all blocks which in quality and dimensions do not conform strictly to these specifications will be rejected, and must be *immediately removed from the line of the work.*

4. Contractors will be required to furnish such laborers as may be necessary to aid the inspector in the examination and culling of the blocks; and in case the contractors shall neglect or refuse so to do, such laborers as, in the opinion of the Engineer Commissioner, may be necessary will be employed, and the expense incurred will be deducted and paid out of any money then due or which thereafter may become due the contractors. The blocks may be of any syenite or granite equal in hardness to what is known as Quincy granite, but hard, basaltic stone that will take a smooth polish under traffic will not be used.

5. All wood blocks, &c., necessary to be removed shall be taken up and removed immediately from the line of the work. The subsoil or other matter is then to be excavated and removed to the depth of twelve and one-half (12½) inches below the top line of the proposed new pave-

ment when fully rammed. Should there be any spongy material or any vegetable matter in the bed thus prepared, all such material will be removed and the space filled with clean gravel or sand. Care must be taken in excavating to preserve the proper crown, which will be sensibly the same as at present where the street is paved with wood or stone blocks. All holes and inequalities to be filled to a proper level with sand or gravel only, such filling to be well and faithfully compacted by rolling or ramming.

6. Upon the foundation as above is to be laid a bed of fine bank gravel, to be approved by the Engineer Commissioner, four inches in depth when compressed, to be screened from all pebbles measuring more than one and one-half ($1\frac{1}{2}$) inches in their largest dimensions, and to be thoroughly rolled and rammed. Upon this will be laid a bed of fine, sharp sand, thoroughly dry, three (3) inches in thickness, to serve as a bed for the blocks, which will be laid directly upon and imbedded in it, with close joints. The stone blocks are to be laid at right angles with the line of the street, with such crown as the Engineer Commissioner may direct; each course to be of blocks of an uniform width and depth, and so laid that all longitudinal joints shall be broken by a lap of at least two (2) inches. When thus laid, the blocks shall be immediately covered with clean, fine, hot gravel in proper quantities, and raked until all the joints become filled therewith, and the blocks will then be carefully rammed to a firm, unyielding bed, with uniform surface, and with proper grade and crown. There will then be poured into the joints, at a temperature of 300° Fahrenheit, paving cement of proper consistency, to be approved by the Engineer Commissioner, to be obtained by the direct distillation of coal-tar, and to be the residuum therefrom. The cement required is ordinarily numbered between four and five at the manufactory. It will be poured into the joints of the pavement until the sand beneath and the gravel between the blocks will absorb no more and the joints are filled flush with the upper surface of the pavement. Not less than five (5) gallons of paving cement to each square yard of pavement will be required; this quantity must be brought upon the ground upon the line of the work, and whatever may remain after the completion of the work will be the property of the District of Columbia, and will be hauled to the Sixth-street property-yard, at the expense of the contractors.

SPECIFICATIONS FOR LAYING McADAM PAVEMENT. (BIDS OPENED OCTOBER 19, 1878.)

1. The road will be dressed to the proper grade and cross-section, twelve inches below the surface of the street when finished.
2. The surface will be well compacted by rolling and ramming. Any mud or soft or compressible material in the road-bed will be removed, and the space filled with clean earth or gravel.
3. On this bed the metal will be spread in a uniform layer of eight (8) inches. The whole will then be compacted by rolling, and ramming in such places as the roller cannot reach.
4. This base course of metal will be of broken stone; of any hard and firm stone which may be approved by the Engineer Commissioner. This stone will be broken to pass through a ring three (3) inches in diameter by its longest dimensions, and screened from all dirt and particles less than one-quarter of an inch wide.
5. On this base course will be spread the top course of metal four (4) inches thick, made from hard and compact stone. Granite, trap, or

equally hard stone, will be required for this top course, which will be broken to pass through a ring two (2) inches in diameter.

6. The stone for this course will be screened, and entirely freed from dust and the finer particles of stone. This top course will be well compacted by rolling. On this course will be spread the top dressing, obtained from the screening of the top course, in sufficient quantity to give half ($\frac{1}{2}$) an inch thickness after filling the surface void spaces of the top course.

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SPECIFICATIONS OF THE PROCESS UNDER WHICH AWARD WAS MADE.
(BIDS OPENED OCTOBER 19, 1878.)

Materials, proportions, machinery, and equipment for laying asphalt pavement, commonly known as "Grahamite," as proposed to be done by J. S. Baldwin & Co., upon streets named in their accompanying bid.

We propose to lay the asphalt pavement, generally called "Grahamite," invented by E. J. De Smedt, manufacturing chemist, and laid by him on Fifth avenue, in New York, Sixth street, in Philadelphia, Pennsylvania avenue and F streets, Washington, and elsewhere.

The following are the specifications:

1st. Refined Trinidad asphalt.

2d. Heavy pure petroleum oil.

3d. Very fine sand containing about 15 per cent. amorphous carbonate of lime, or 10 per cent. pure hydro-silicate of alumina.

The Trinidad asphalt, whether crude or refined (so-called), as found in this market, is still very impure and contains from 20 to 35 per cent. of impurities; therefore, the asphalt is refined and brought to a uniform standard of purity and gravity.

The heavy petroleum oils, as they are brought in this market, generally contain water, light oils, coke, and gummy substance soluble in water, and in order to free this oil from its impurities, it is purified by a special treatment and brought to a specific gravity of from 18° to 22° Baume, and a fire test of 200° Fahrenheit.

By the mixing of these two hydro-carbons, petroleum oil and asphalt, the matrix of the pavement called asphalt cement is manufactured in the proportions 4 to 5 of asphalt and 1 of oil, according to the gravity of the oil, and in such proportions as to obtain an asphaltic cement of a gravity of 119° at 60° Fahrenheit and a fire test of 250° Fahrenheit.

The asphaltic cement is mixed with sand in the following proportions: From 15 to 18 of asphaltic cement with 85 to 82 of sand, the two ingredients are heated separately at about 300° Fahrenheit, and the mixing is performed in a twin pug mill, being measured in proper proportions by means of vessels suspended above on movable pulleys; this apparatus secures a thorough and homogeneous mixture.

The asphalt, having been prepared in the manner thus indicated, is laid on the foundation in two coats.

The first coat of one-half inch thickness, called protecting coat, might be laid richer in asphaltic cement and may be consolidated simply by rolling with iron or stone rollers weighing about 1,000 pounds or half a ton.

On this first asphalt coat is then carefully spread with iron rakes the final finishing coat, prepared as above indicated, which is brought to the ground in heated carts at about 250° Fahrenheit; the spread asphalt, exceeding by about two fifths the ultimate thickness required, is then compacted by ramming with iron pestles kept sufficiently hot in porta-

ble furnaces to prevent the asphalt from sticking to the rammers, and also to prevent a too rapid cooling of the asphalt.

After the ramming hot smoothing-irons are passed over the surface in order to close the grains on the top; and after finished so far, hydraulic cement is spread on the surface and the pavement is then rolled with heavy rollers. The consolidation may also be effected with heavy iron steam rollers. We prefer the method before stated of ramming and rolling, but if desired will use a heavy steam roller as the Commissioners may direct.

In order to make the gutters which are consolidated but little by traffic entirely impervious to water, the whole length, 12 inches, will be coated with hot pure asphalt and smoothed with hot smoothing-irons, in order to saturate the pavement to a certain depth with an excess of asphalt.

The machinery required for the above work consists of—

1. Engine and boiler, 20 horse-power.
2. Improved mixers.
3. Sand-burners, for drying and heating, set in brick-work.
4. Asphalt refiners.
5. Rollers, rammers, furnaces, hot carts.
6. Other small tools, sufficient to lay 1,800 yards per day with a force of 60 or 65 workmen.

We guarantee that the District will not be subjected to the payment of any claim or royalty or other charge, based upon any alleged infringement of any patent.

Our works are located on North Capitol street, between K and L.

J. S. BALDWIN & CO.

Schedule of bids of granite and compressed asphalt block and McAdam pavements, &c.—Continued.

Names.	Granite block, Tenth, between E and F streets, 1,366 square yards.		Granite block, Eleventh, between E and F streets, 1,734 square yards.		Granite block, Twelfth, between E and F streets, 1,627 square yards.		Granite block, Thirteenth, between E and F streets, 1,740 square yards.		Granite blocks, B street and New Jersey avenue, southeast, 600 square yards.		McAdam, 1,447 square yards, Washington, between West and Stoddard streets.		Remarks.
	Per yard.	Total cost.	Per yard.	Total cost.	Per yard.	Total cost.	Per yard.	Total cost.	Per yard.	Total cost.	Per yard.	Total cost.	
Taylor, Jonathan	\$2 11	\$2,882 26	\$2 11	\$3,658 72	\$2 11	\$3,432 97	\$2 11	\$3,671 40	\$2 35	\$1,410 00			Richmond granite, block not jointed.
O'Hare & Brennan	2 68	3,660 88	2 69	4,664 46	2 70	4,392 90	2 71	4,715 40	2 90	1,740 00	\$0 90	\$1,302 30	Richmond granite.
Reynolds, James											1 04	1,504 80	Richmond granite, marked "Mohler."
McNamara, Peter	2 40	3,278 40	2 40	4,161 60	2 40	3,904 80	2 40	4,176 00	2 40	1,440 00			Richmond granite.
Williams & Humber	2 23	3,046 18	2 23	3,866 82	2 23	3,628 21	2 23	3,880 20	2 23	1,338 00			Mt. Desert and Cape Ann granite.
Eslin, Charles H.	2 28	3,114 48	2 28	3,953 52	2 28	3,709 56	2 28	3,967 20	2 28	1,368 00			Richmond granite, on file.
Kirby & Co., Thomas									2 19	1,314 00			Richmond granite.
Nettley & Joyce													Cape Ann.
Mohler, Wm. H. (not signed)	2 33	3,182 78	2 33	4,040 22	2 33	3,790 91	2 33	4,054 20	2 33	1,398 00			Richmond.
Draney, F. M.													Do.
Hussey, William													Do.
Simpson, W. W.	2 20	3,005 20	2 20	3,814 80	2 20	3,579 40	2 20	3,838 00					Do.
Steers, Thomas M.													Do.
Stafford, John G.	2 27	3,100 82	2 28	3,953 52	2 28	3,717 68	2 29	3,984 60	2 23	1,341 00	90	1,302 30	Woodstock.
	2 27	3,100 82	2 28	3,953 52	2 28	3,717 68	2 29	3,984 60	2 23	1,341 00	87	1,258 80	Cape Ann.
	2 52	3,442 32	2 53	4,387 52	2 53	4,124 44	2 54	4,419 60	2 48	1,491 00			Richmond.
Ross, W. L.	2 15	2,936 90	2 15	3,728 10	2 15	3,498 05	2 15	3,741 00	2 15	1,290 00			Fox Island.
	2 46	3,380 36	2 46	4,265 64	2 46	4,242 00	2 46	4,280 40	2 46	1,476 00			Cape Ann.
Gleason, Andrew*	2 46	3,380 36	2 46	4,265 64	2 46	4,242 00	2 46	4,280 40	2 46	1,476 00			Richmond.
Shipman, J. J.	2 19 ¹ / ₂	3,001 78	2 19 ¹ / ₂	3,810 46	2 19 ¹ / ₂	3,575 33	2 19 ¹ / ₂	3,823 65	2 24	1,344 00	97 ¹ / ₂	1,410 82	Do.
Buckley & Ryan	2 48	3,387 68	2 48	4,300 82	2 48	4,034 96	2 48	4,315 20			74	1,070 78	Sample.
Cranford, Hoffman & Filbert	2 16	2,950 56	2 16	3,745 34	2 16	3,514 32	2 16	3,738 40	2 16	1,296 00	1 95	2,821 65	
Robinson, J. P.													
Gannan, James											87	1,258 80	
Zagg, J. E.											69	1,898 43	

* Will do all stone work for \$2.23 per square yard.

Schedule of bids for asphaltum pavements, opened October 19, 1878, in the office of the Commissioners of the District of Columbia.

Names.	9,579 square yards, E between Fifth and Eleventh streets, north- west.		2,709 square yards, F between Fifth and Seventh streets, north- west.		1,808 square yards, J street, between J street and New York avenue, northwest.		1,307 square yards, Sixth, between E and F streets, northwest.		1,430 square yards, Eleventh, be- tween D and E streets, north- west.		1,293 square yards, Twelfth, be- tween Pennsyl- vania avenue and E street, north- west.		1,004 square yards, Thirteenth, be- tween B and C streets, north- west.	
	Per yard.	Total cost.	Per yard.	Total cost.	Per yard.	Total cost.	Per yard.	Total cost.	Per yard.	Total cost.	Per yard.	Total cost.	Per yard.	Total cost.
Taylor, Jonathan.....			\$1 86	\$5,038 74	\$2 20	\$4,175 60	\$1 86	\$2,431 02			\$1 86	\$2,404 98	\$1 86	\$2,983 44
Kirby, Thomas, & Co.....														
Darby, W. R., & Co.....	1 75	\$16,763 25												
Bailey, Everett Paving Company.....	1 85	17,721 15	2 24	6,081 70	1 87	3,558 75	1 85	2,360 32	2 35	\$3,370 50	2 15	2,779 95	2 15	2,448 50
Murdock, W. C.....	1 86	17,816 94	1 96	5,329 95	1 86	3,530 28	1 86	2,431 02	1 86	2,639 80	1 86	2,414 58	1 86	2,487 44
Baldwin, J. S., & Co.....	1 75	16,763 25	1 78	4,822 02	1 78	3,378 44	1 78	2,326 46	1 78	2,545 40	1 78	2,390 55	1 78	2,855 12
Cranford, Hoffman & Filbert.....	1 75	16,763 25	1 93	5,228 37	2 05	3,890 90	1 85	2,360 32	2 07	2,567 25	1 79	2,314 47	1 79	2,871 16
Names.	670 square yards, Thirteenth, be- tween Pennsyl- vania avenue and E street, north- west.		559 square yards, Thirteenth and X streets, north- west.		6,169 square yards, Pennsylvania av- enue, between First and Second streets, south- east.		3,898 square yards, Pennsylvania av- enue, between First and Second streets, south- east.		1,186 square yards, Pennsylvania av- enue and Second street, southeast.		599 square yards, Vermont avenue and N street.		11,000 square yards, M between Sixth and Twelfth streets, north- west.	
	Per yard.	Total cost.	Per yard.	Total cost.	Per yard.	Total cost.	Per yard.	Total cost.	Per yard.	Total cost.	Per yard.	Total cost.	Per yard.	Total cost.
Taylor, Jonathan.....														
Kirby, Thomas, & Co.....														
Darby, W. R., & Co.....														
Bailey, Everett Paving Company.....	\$2 00	\$1,340 00	\$2 00	\$1,118 00	\$2 04	\$12,615 05	1 89	\$7,367 22	\$1 89	\$2,259 54			\$1 90	\$20,900 00
Murdock, W. C.....	1 86	1,246 20	1 86	1,039 74	1 86	11,474 34	1 89	7,386 71	1 89	2,268 84	\$2 10	\$1,257 90	2 20	24,200 00
Baldwin, J. S., & Co.....	1 80	1,206 00	1 80	1,006 20	1 75	10,785 75	1 75	6,821 50	1 78	2,111 08	1 86	1,114 14	1 86	20,400 00
Cranford, Hoffman & Filbert.....	1 79	1,199 30	2 10	1,173 90	1 84	11,381 80	1 75	6,821 50	1 78	2,111 08	1 80	1,078 20	1 75	19,350 00

* Extra work on Fourteenth street (grading), \$348; extra work on M street, \$5,126 70; extra work on Eleventh street, \$239.

† Extra work on Fourteenth street, \$390; extra work on M street, \$4,307 44; extra work on Eleventh street, \$292. Will lay all asphaltum pavements at \$1.75 per yard.

‡ Extra work on M street, \$2,718 90.

APPENDIX S S.—TABLES OF EXPENDITURES AND ESTIMATES.
TABLE No. 1.—Table of contracts for improvements under which work has been done from November 1, 1877, to June 30, 1878.

No. of contract.	Date.	Names of contractors.	Streets.	Limits.		Description of work.	Cost.	Remarks.
				From—	To—			
46	1877.	G. L. Sheriff.				Sweeping and cleaning alleys	\$2,437 30	Complete.
52	May 10	L. F. Wright.				Sweeping street.	22,525 00	Incomplete. See Table No. 2.
69	July 20	Henry Himber.	L street north.	Sixteenth st. west.	Twentieth st. west.	Construct 6-foot brick barrel-sewer	1,626 33	Complete.
71		Davis & Murphy.	North Capital street.			Repair Tiber arch.	9,653 04	Complete; \$2,558.50 certified to auditor for contractors; work completed by Engineer's Department, District of Columbia; \$2,336.48 due from contractors.
73	Sept. 22	do	Virginia avenue	G street north	Twenty-fourth st. west.	Lay 15-inch-pipe sewer on south side of.		Complete.
			E street north	Twenty-third st. west.	do	do		
			Fourteenth street west.	Boundary		Construct two silt-basins.	488 93	
			K street and North Capitol.	Southwest corner.		Construct sewer-trap with brick connection, and 31 feet of 34-foot brick barrel-sewer.		
74	Oct. 23	Himber & Williams	K street bridge over			Repair No. 2 engine-house.	1,002 40	Do.
75	Oct. 22	King & Long	Rock Creek.			Lay new flooring on roadway.		
			P street bridge over			do	1,089 40	Do.
			Rock Creek.			Construct wooden bridge with stone abutment.	340 67	Do.
76	Oct. 26	James Gannon.	Chase road, near Lincoln avenue.			Construct stone and brick culvert.	546 00	
77	Oct. 27	William H. Wylie	Fourteenth street road, near Piney Branch.			Fill to grade	53 50	Do.
			Alley in Square No. 677 (Jackson's alley).			do		
78	Oct. 29	John J. Danaher.	O street north.	First street, west	North Capitol st.	Lay 15-inch-pipe sewer with man-hole top and covers.	342 22	Complete; amount of contract, \$126.43; work completed by the Engineer's Department, District of Columbia; \$210.78 due from contractor.
			B street south	New Jersey avenue.	South Capitol st.	do	337 18	Complete.
79	Nov. 15	Patrick Maloney.	Seventh street east	South Carolina avenue.	G street south	Construct 5 gutter-drops and connections.	88 12	Complete.

TABLE No. 1.—Table of contracts for improvements under which work has been done from November 1, 1877, to June 30, 1878—Continued.

No. of contract.	Date.	Names of contractors.	Streets.	Limits.		Description of work.	Cost.	Remarks.
				From—	To—			
80	1877. 6 Nov.	Marion Osborn...	Seventh street road at Piney Branch.			Construct the south wing-wall of culvert.	\$136 34	Complete.
81	Nov. 7	Felix M. Drancy...	Broad Branch road, near Swart road.			Excavate for and construct a dry stone culvert, grade roadway and sod the bank.	342 00	Do.
82	Nov. 13	Henry Hnaber...	Alley in Square 676.			Lay 15-inch-pipe sewer with five manholes complete, on the south side of the new culvert over Foundry Branch.	179 79	Do.
83	Nov. 15	Bernard J. Coyle & Jas. Reynolds.	New cut road...			Complete the side of the new culvert over Foundry Branch.	223 89	Do.
84	Nov. 12	Jeremiah Desmond.	Montgomery street, Georgetown.	Stoddard street...	West street.	Grading, gravelling roadway, laying cobble-stone gutter.	147 07	Do.
85	Dec. 31	Hiram S. Litchfield.	Northeast corner of Sixth and D streets, northwest.			Make the alterations and additions to the old Unitarian Church to prepare it for proper occupation as a police court for the District of Columbia.		
86		Pettit & Dripps...				Construct a steam boiler for Georgetown pump.	1,217 00	Do.
87	1878. Feb. 7	George B. Harrison	D street south	Twelfth st. east.	Thirteenth st. east	Grade.....		Complete; work done without expense to District.
88	Mar. 4	Felix M. Drancy...	Military road, county.			Remove the present log abutments of bridge over Rock Creek, and replace the same with rubble masonry abutments and wing-walls.	452 91	Complete.
89	Apr. 1	Simon Carmody...	Alley in Square 378			Take up and relay cobble-stone pavement, furnish and lay cobble-stone pavement, relay 12-inch gutter-flag, haul and lay 12-inch gutter-flag, necessary earth, filling, laying and putting down a 15-inch-pipe sewer with connections and manholes and with two alley-traps, and closing two old manholes and grade connections.	236 01	Do.
90	Mar. 28	Denis N'iland				Seal and clean alleys in Washington and Georgetown.		

No.	Date	Jeremiah J. Desmond.	K street north	Fifth street west	Sixth street west	Do.
91	Apr. 16	Jeremiah J. Desmond.	D street north	Seventeenth street west.	Eighteenth street west.	Do.
92	Apr. 17	John H. Fowler.				1,000 00
93	Apr. 17	Bernard J. Coyle & Jas. Reynolds.	Military road, county			Incomplete. No. 2.
94	May 18	Bernard J. Coyle & Jas. Reynolds.	Fourteenth street west.	Pennsylvania ave.		Complete. Do.
95	June 17	James Gannon.	Intersection of Boundary street and Benning's road, northeast.			Do.
96	June 19	Edwin N. Gray & George E. Noyes.				Incomplete.
Total.....						45,814 74

Laying and putting down a 12-inch-pipe sewer with one man-hole on south side of.

Laying and putting down a 12-inch and 15-inch-pipe sewer with three manholes and one wooden box on the north side of.

Sweep and clean alleys in Washington and Georgetown.

Improvement of bridge over Rock Creek.

Reconstruct 412 feet, more or less, of 2-ring brick barrel-sewer, 44 feet inside diameter, upon a hydraulic-cement concrete foundation.

Construct a brick gravel-basin and 55 linear feet of 2-ring brick barrel-sewer.

Construct a stand-pipe on the crest of Meridian Hill in or near the extension of Sixteenth st., furnish and put up one Blake compound duplex pump with the necessary pipes.

TABLE NO. 2.—Table of contracts for improvements under which work has been done from July 1, 1878, to October 1, 1878.

No. of contract.	Date.	Names of contractor.	Streets.	Limits.		Description of work.	Cost.	Remarks.
				From—	To—			
52	1877. May 10	L. P. Wright.....				Sweeping and cleaning streets of Washington and Georgetown.	\$8,775 00	Incomplete. Current expenses. Requires for completion \$19,425.
92	1878. Apr. 17	John H. Fowler.....				Sweep and clean alleys in Washington and Georgetown.	1,600 00	Incomplete. Current expenses. Requires for completion \$2,600.
94	May 13	Bernard J. Coyle and James Reynolds.	Fourteenth street west.	Pennsylvania ave.	H street north.	Reconstruct 412 feet, more or less, of 2-ring brick barrel sewer, 44 feet inside diameter, upon a hydraulic cement concrete foundation.	800 40	Complete.
96	June 19	Edwin N. Gray and George E. Noyes.				Construct a stand-pipe on the crest of Meridian Hill, in or near the extension of Sixteenth street. Furnish and put up one Blake compound duplex pump with the necessary pipes. Plastering work to finish two sections of the new work-house. Painting, &c., new work-house.	4,500 00	Incomplete. Requires for completion \$11,627.75.
97	Aug. 7	Washington Merchants.						Complete.
98	Sept. 6	William E. Spaulding and George W. Bonnell.						Incomplete.
99	Aug. 8	James G. Naylor.						Complete.
100	Aug. 8	John Burns and George L. Benner.						Complete.
101	Aug. 14	Charles White, Robert White, and Geo. White.						Do.
102	Aug. 8	Leon W. Guinand.						Incomplete.
103	Aug. 13	James Gannon.	First street east.	C street south.	D street south.	Furnish coal and wood. Construct a 2-ring brick barrel sewer, 24 inches inside diameter, on east side of —, with four manholes complete. Collection of dead animals and garbage. Take up and remove 350 feet, more or less, of the arch of the main Tiber sewer, within the limits of the Botanical Garden.	656 15	Complete.
105	Aug. 23	John McCanley.						Incomplete.
106	Aug. 26	Joseph Williams.					382 36	Incomplete. Requires for completion \$382.36.

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107	Aug. 26	Henry Himber	Eighth street east	Maryland avenue	Massachusetts ave	Construct a 2-ring brick barrel sewer, 36-inch inside diameter, on the east side of —, with twelve manholes. Construct a 2-ring brick barrel sewer, 24-inch inside diameter, on the north side of —, with seven manholes. Lay 15-inch pipe sewer on north side of —, with three manholes. Construct a 2-ring brick barrel sewer, 24-inch and 30-inch inside diameter, south side of —, with three manholes, and connecting four sewer-traps with 15-inch sewer pipe complete. Erect and set up in brick work, one Gold's cast-iron heating furnace and one Barstow's dome heating furnace in the new District work-house. Construct a brick pump-house	468 15	Incomplete. Requires for completion, \$1,514.10.
108	Aug. 30	John G. Stadford	N street north	Fourteenth street west.	Vermont avenue	Construct a 2-ring brick barrel sewer, 24-inch and 30-inch inside diameter, south side of —, with three manholes, and connecting four sewer-traps with 15-inch sewer pipe complete. Erect and set up in brick work, one Gold's cast-iron heating furnace and one Barstow's dome heating furnace in the new District work-house. Construct a brick pump-house	Complete.	Complete.
109	Sept. 5	Hamilton I. Gregory.					Do.	Do.
110	Sept. 7	Henry Himber	U street north	Sixteenth st. west.	Seventeenth street west.	Paint roof Western market-house. Construct a stone apron on the north side of the new culvert over Foundary branch.		Incomplete. Requires for completion, \$4,268.22.
112	Sept. 28	Thomas A. Brown						Complete.
113	Sept. 27	John J. Shipman	New Cut road, county					Incomplete. Requires for completion, \$1,176.50.
		Total					17,182 06	

TABLE NO. 3.—Table of contracts for the repairs and replacement of wood pavements, from July 1, 1878, to October 1, 1878.

No. of contract.	Date.	Names of contractors.	Street.	Limits.		Description of work.	Cost.	Remarks.
				From—	To—			
104	Aug. 13. 1878	Andrew Gleason and Edward Kelly.	Seventh street west.	D street north	Q street north	Lay stone block pavement .....	.....	Incomplete; requires for completion \$53,000.
111	Sept. 13. 1878	William C. Murdock	Fourteenth street west.	H street north	Boundary	Lay asphaltum pavement on east side of Washington and Georgetown Railroad track and around the circle at intersection of M street north and Massachusetts avenue.	.....	Incomplete; requires for completion \$70,000.
			East Capitol	First street east	Second street east	Lay asphaltum pavement on both sides of Metropolitan Railroad track.	.....	Incomplete.
			East Capitol	Second street east	Ninth street east	Lay asphaltum pavement on the south side of Metropolitan Railroad track.	.....	Do.

TABLE No. 4.—Miscellaneous work done under orders authorized by the Commissioners of the District of Columbia from November 1, 1877, to June 30, 1878.

Names.	Streets.	Limits.		Description of work.	Cost.	Remarks.
		From—	To—			
James Reynolds	Intersection of Thirteenth west and Q north.			Construct sewer-traps	\$24 40	Authorized by Commissioners, October 13, 1877.
Do.	Intersection of Boundary street and Maple avenue.			Improvement of intersection, lowering sewer, repairing manhole, relaying pipe, and putting in one additional trap.	269 70	Authorized by Commissioners, September 22, 1877.
D. W. Bailey	Various streets and avenues in Washington and Georgetown.			Repairing concrete pavements	1,080 92	Authorized by Commissioners, September 6, 1877.
James Reynolds	Twenty-first	L	M	Work at entrance of alley	37 40	Authorized by Commissioners, October 13, 1877.
Jonathan Taylor	Various streets and avenues in Washington and Georgetown.			Repairing concrete pavements	3,507 74	Authorized by Commissioners, December 19, 1877.
B. J. Coyle & Co.	Southeast corner of Ninth east and H north.			Construct gutter-drops.		
	Southeast corner of Tenth east and I north.			do		
	Southeast corner of Sixth east and I north.			do	172 00	Authorized by Commissioners, December 17, 1877.
King & Long	Potomac street, Georgetown			Enlarging sewer-traps		
John E. Herrell	Tenth east.	Pennsylvania avenue	D south.	Construct foot-bridge over Chesapeake and Ohio Canal.	200 00	Authorized by Commissioners, September 29, 1877.
G. W. Shockey	D south.	New Jersey avenue.	House No. 26, east.	Improvement of		Authorized by Commissioners, September 12, 1877.
William H. Wyle.	North Capitol.	M north	M north	Laying foot-walks	32 66	Authorized by Commissioners, December 7, 1877.
James Gannon	Alley in square 517.			Filling over sewer	1,392 53	Authorized by Commissioners, December 12, 1877.
J. Desmond	Alley in square 959			Improvement of	127 21	Authorized by Commissioners.
J. T. H. Hall	New York avenue	Fifth west	Seventh west	Filling to grade.	19 99	Authorized by Commissioners, February 14, 1878.
Henry Humber.	Corner of Twentieth west and P north.			Repairing McAdam roadway	2,263 50	Authorized by Commissioners, March 12, 1878.
William L. Riley.	Alley in square 100			Building a brick box around gas-pipe and covering same with flagging.	68 28	Authorized by Commissioners, May 5, 1878.
B. J. Coyle & Co.	Thirteenth east	H north.	I north	Filling to grade.	55 00	Authorized by Commissioners, May 15, 1878.
				Improvement of	146 80	Authorized by Commissioners, May 7, 1878.
					9,387 61	

TABLE No. 5.—Schedule of streets paved with wood and now requiring repairs.

Street.	Limits.		Number of square yds.	Remarks.
	From—	To—		
First street east	B street north	C street south	2,092.32	Rectangular block; in bad condition.
Do	B street north	C street north	5,125.13	Do.
First street west	Maryland avenue	I street north	13,120.56	Rectangular block; from Maryland avenue to Pennsylvania avenue in fair condition; Pennsylvania avenue to I street in bad condition.
Do	East Capitol street	B street north	2,365.79	Round block; requires slight repairs.
Second street east	Do	B street north	7,807.32	Round block; requires slight repairs.
Second street west	B street south	Maryland avenue	1,109.95	Round block; in good condition.
Do	Pennsylvania avenue	Between I and K sts. north	15,125.76	Rectangular block; in bad condition.
Third street west	B street south	L street north	10,460.81	Round block; M to S, B, L (Missouri avenue) in bad condition; from L to N (Missouri avenue) to N, B, L (Pennsylvania avenue) requires slight repairs; Pennsylvania avenue to L street north in bad condition.
Fourth street east	East Capitol street	C street south	1,499.39	Rectangular block; in bad condition (south of Pennsylvania avenue).
Do	do	do	3,826.39	Round block; requires slight repairs.
Fifth street east	do	do	5,519.18	Rectangular block; requires slight repairs.
Sixth street east	North Carolina avenue	O street north	5,087.39	Rectangular block; in bad condition.
Sixth street west	P street north	Pennsylvania avenue	1,000.58	Do.
Seventh street east	Pennsylvania avenue	D street north	16,742.73	Do.
Seventh street west	C street north	D street north	948.73	Do.
Seventh street (intersection)	Seventh st. west, C st., Louis	Potomac Ferry	2,708.72	Rectangular block; in bad condition (west side railroad track).
Eighth street east	L street south	Pennsylvania avenue	511.05	Rectangular block; in bad condition.
Eighth street west	C street north	Pennsylvania avenue	3,681.78	Rectangular block; in bad condition.
Do	C street north	Pennsylvania avenue	4,082.97	Do.
Ninth street west	B street north	Pennsylvania avenue	15,473.14	Rectangular block; from G street to H street in good condition; remainder in bad condition.
Do	Q street north	Pennsylvania avenue	13,192.50	Rectangular block; in bad condition.
Do	R street north	Pennsylvania avenue	13,700.06	Do.
Eleventh street west	Q street north	O street north	6,495.02	Do.
Do	Q street north	P street north	3,048.19	Do.
Twelfth street west	Boundary street	P street north	16,094.64	Rectangular block; in bad condition (west side of Fourteenth street).
Fourteenth street west	B street north	Pennsylvania avenue	19,394.77	Rectangular block; in bad condition.
Fifteenth street west	B street north	W street north	36,588.75	Do.
Do	R street north	Boundary street	6,830.43	Do.
Sixteenth street west	L street north	Running south	11,396.04	Do.
Eighteenth street west	L street north	Circle	2,570.00	Do.
Nineteenth street west	Pennsylvania avenue	K street north	1,325.28	Do.
Twentieth street west	do	do	3,358.25	Do.
Twenty-first street west	K street north	M street north	2,499.44	Rectangular block;
Do	New Hampshire avenue	M street north	1,383.82	Round block;
Twenty-third street west	Circle	L street north		
Twenty-fifth street west	Pennsylvania avenue			

A street north	Third street east	1,896.83	Round block; requires slight repairs.
Do	do	2,489.48	Rectangular block; in bad condition.
B street south	Second street east	17,556.62	Do
Do	Fourth street west	5,416.03	Round block; in excellent condition.
Do	Market street	3,789.14	2,485.70 square yards round block between Pennsylvania avenue and Fourth street east; requires but slight repairs; 1,303.44 square yards rectangular block between Fourth and Fifth streets in bad condition.
B street north	Third street west	3,364.82	Rectangular block; in bad condition.
C street north	Fourth and a-half street west	3,994.48	Round block; requires slight repairs.
Do	North Capitol street	4,026.04	Rectangular block; requires repairing (north side of the space).
C street north (Market Space)	Eighth street east	1,167.38	Rectangular block; north side space, front Wallach's school house.
C street south	Third street east	7,897.90	Rectangular block; in bad condition.
C street east	Pennsylvania avenue	1,865.95	Do
D street north	Sixth street west	1,633.33	Rectangular block; requires repairing (south side of the space).
D street south	Eighth street east	1,369	Rectangular block; requires repairing (north side of the space).
E street north	Fifteenth street west	1,334.22	Rectangular block; in bad condition.
Do	New Jersey avenue	3,894.81	Do
East Capitol street	Fifteenth street east	1,958.05	Do
F street north	Fourth street west	10,893.69	Do
Do	Eighteenth street west	4,171.97	Do
H street north	Fourth street east	2,579.12	Rectangular block; requires slight repairs.
Do	First street west	9,740.06	Rectangular and round blocks; in bad condition.
I street north	Tenth street west	4,194.08	Round block; in bad condition.
K street north	Pennsylvania avenue circle	4,968.70	Rectangular block; in bad condition.
L street north	Running west	12,271.84	Do
M street north	Twenty-sixth street west	11,197.88	Do
Do	Scott Square	18,702.70	Do
N street north	Seventeenth street west	8,313.29	Round block; in bad condition.
O street north	Eighteenth street west	14,890.57	Rectangular block; in bad condition.
P street north	Fourteenth street west	1,764.49	Round block. From New Jersey avenue to Seventh street requires slight repairs; Seventh to Fourteenth street in bad condition; Fourteenth to Eighteenth street requires slight repairs.
R street north	Fourteenth street west	24,994.63	Round block; in bad condition.
Delaware avenue	C street north	8,404.90	Do
Louisiana avenue	Seventh street west	2,154.56	Round block; in good condition.
Maryland avenue	Third street west	3,509.44	Rectangular block; in bad condition.
Massachusetts avenue	Thirteenth street west	3,513.12	Round block; requires slight repairs.
Missouri avenue	Fourth and a-half street west	29,294.79	Rectangular block; in bad condition.
New Hampshire avenue	Pennsylvania avenue	2,591.92	Round block; requires slight repairs.
North Carolina avenue	Sixth street east	17,952.76	Rectangular block; in bad condition.
New Jersey avenue	O street north	2,183.38	Do
Do	E street south	37,221.94	Do
Pennsylvania avenue	Second street east	8,919.24	Do
Do	Twenty-sixth street west	10,565.16	Rectangular block; in bad condition (south side).
Rhode Island avenue	Fifteenth street west	5,137.15	Rectangular block; in bad condition.
South Carolina avenue	Eighth street east	25,160.00	Do
GEORGETOWN.	Fayette street	790.23	
First street		5,625.30	Do

TABLE No. 5.—Schedule of streets paved with wood and now requiring repairs.—Continued.

Street.	Limits.		Number of square yds.	Remarks.
	From—	To—		
Second street	High street	Fayette street	4,997.72	Rectangular block, in bad condition.
Congress street	West street	Bridge street	4,982.82	Do.
Green street	Montgomery street	High street	5,820.62	Square and round blocks; in bad condition.
Market street	West street	Bridge street	4,950.36	Round block; in bad condition.
Potomac street	First street	Third street	2,113.47	Do.
Washington street	Bridge street	Fourth street	2,964.67	Rectangular block; in bad condition.
West street .....	.....do	Gay street	1,921.67	Do.
	Washington street	High street	3,561.24	Do.
Total			630,172.80	

TABLE No. 6.—*Schedule of proposed improvements for completion of sundry avenues and streets in the cities of Washington and Georgetown, D. C.*

Street or avenue.	Limits.	Proposed improvement.	Estimated cost.
Canal	B to M south	Grade the entire width of street	\$84,145 60
New Jersey avenue	I to M south	Grade, gravel, and sidewalk, and continuation of sewer main.	19,955 46
South Capitol	B to S south	Grade, gravel, and sidewalk	29,333 65
North Capitol	K to Boundary north	do	12,452 40
M north	New York avenue to First east.	do	12,146 52
Boundary north	Sixth west to Second east.	Grade, gravel roadway, and sidewalk on south side.	12,729 60
First east	K to New York avenue north.	Grade, fill over 6-foot sewer to Boundary street.	10,900 00
Delaware avenue	H to M north	Grade	6,208 74
G north	North Capitol to Fifth east.	Grade and sidewalk between North Capitol and Delaware avenue.	5,511 66
D north	Delaware avenue to Second east.	Grade, gravel, and sidewalks	6,023 50
Beall, Georgetown	High to Monroe	Gravel and gutters	2,154 60
Dunbarton, Georgetown	Congress to Washington.	Grade, gravel, and sidewalks	2,608 20
Pennsylvania avenue	First to Fifteenth	Relay sidewalks	14,841 00
I	North Capitol to First east.	do	397 95
Tenth west	B to Maryland avenue south.	Grade, gravel, and sidewalks	4,991 92
C south	Ninth to Thirteenth-and-a-half west.	do	9,487 51
H north*	Vermont avenue to Pennsylvania avenue.	Paved with asphaltum	27,943 26
I north	Seventeenth to Pennsylvania avenue west.	do	17,748 00
Thirteenth west	P to R north	Grade and concrete carriageway	12,260 90
Do	R to Boundary north	Grade and gravel carriageway	5,732 92
N north	Twenty-second to Twenty-third west.	Repair gap in filling	2,865 50
Vermont avenue	P to R west	Grade and concrete carriageway	16,871 53
Do	R to Boundary west	Grade and McAdam carriageway	21,606 85
C south	New Jersey avenue to First west.	Grade	19,950 00
F north	Second to Sixth east	do	4,370 00
New Jersey avenue	N to Boundary west	Grade, gravel, and sidewalks	16,417 89
New Hampshire avenue	Q to Sixteenth north-west.	Grade, gravel, and sidewalks to T	15,069 45
New York avenue	North Capitol to Boundary.	Grade	18,375 00
Twenty-second west	M to Massachusetts avenue north.	Grade, gravel, and sidewalks	14,871 11
Third east	Virginia avenue to M south.	Grade blue rock pavement and sidewalks.	7,700 73
Sixth east	Pennsylvania avenue to South Carolina avenue south.	Complete concrete carriageway	7,323 11
Do	South Carolina avenue to K south.	Complete McAdam	6,271 20
F north	Maryland avenue east to Second east.	Grading, curbing, gutters, footwalks, and gravel carriageway.	10,061 84
Virginia avenue south	South Capitol to Fourth east.	Curb gutters, footwalks, and gravel carriageway.	11,456 48
		Repair of Tiber arch and construction of overflow.	13,000 00
		Construction of auxiliary main sewers.	400,000 00
		Extension of lateral sewers.	30,000 00
	All parts of Washington and Georgetown.		913,824 08

* Sixteen feet width of railroad track deducted.

T.—REPORT OF THE SUPERINTENDENT OF PROPERTY.

ENGINEER'S OFFICE, DISTRICT OF COLUMBIA,
Washington, November 4, 1878.

GENTLEMEN: I have the honor to transmit herewith the report of the superintendent of property from November 1, 1877, to June 30, 1878, respectfully inviting attention to the recapitulation, as follows, viz:

Total to be accounted for	\$143,984 90
Amount issued	101,743 45

Balance remaining on hand.....	42,241 45
--------------------------------	-----------

A large amount of the construction material issued has been furnished property-owners on permit work, and issued from amount on hand at the property yards, with the exception of certain sizes of sewer pipe, which the District were out of, and had to be purchased.

Very respectfully,

E. B. TOWNSEND,
Superintendent of Property.

The Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

CLASS 1.—Stationery.

Total as per invoices	\$5,141 57
-----------------------------	------------

Issued to—	
Commissioners	\$215 28
Engineer department	757 30
Water department	350 43
Auditor	127 17
Treasurer	84 24
Collector	277 37
Attorney	181 73
Surveyor	204 14
Public schools	2,017 49
Fire department	67 54
Police court	163 13
Washington Asylum	65 33
Coroner	25 21
Assessors	585 21
Register of wills	20 00

5,141 57

CLASS 2.—Blank forms and printing.

Total as per invoices	\$3,747 98
-----------------------------	------------

Issued to—	
Commissioners	169 58
Engineer department	360 15
Water department	204 39
Auditor	146 43
Treasurer	59 24
Collector	55 15
Attorney	1,082 77
Surveyor	8 00
District offices	93 25
Public schools	1,149 16
Fire department	319 01
Police court	37 60
Washington Asylum	7 50
Assessors	35 25
Parking commission	20 50

3,747 98

REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 309

CLASS 3.—School books and supplies.

Total as per invoices.....	\$1,841 67
Issued to—	
Public schools.....	1,841 67

CLASS 4.—Furniture.

Total as per invoices.....	4,489 89
Issued to—	
Commissioners.....	52 42
Engineer department.....	193 09
Water department.....	118 76
Attorney.....	80 96
District offices.....	32 70
Public schools.....	3,517 03
Fire department.....	412 53
Police court.....	2 75
Washington Asylum.....	79 65
	4,489 89

CLASS 5.—Hardware.

Total as per invoices.....	\$19,098 88
Issued to—	
Western Market.....	6 00
Engineer department.....	878 75
Water department.....	13,832 73
Collector.....	19 66
Attorney.....	30 30
Surveyor.....	80
District offices.....	86 67
Public schools.....	2,003 59
Fire department.....	653 17
Police court.....	51 81
Washington Asylum.....	1,019 78
Fire-alarm telegraph.....	370 89
	19,098 88

CLASS 6.—Groceries and provisions.

Total as per invoices.....	\$7,800 30
Issued to—	
Engineer department.....	55 97
Water department.....	6 77
Attorney.....	1 40
Public schools.....	12 08
Fire department.....	24 65
Washington asylum.....	7,699 43
	7,800 30

CLASS 7.—Dry goods, clothing, and notions.

Total as per invoices.....	\$2,177 77
Issued to—	
Commissioners.....	3 13
Engineer department.....	24 57
Water department.....	1 50
Surveyor.....	1 00
Public schools.....	16 82
Fire department.....	34 72
Police court.....	1 25
Washington Asylum.....	2,094 78
	2,177 77

310 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

CLASS 8.—Boots and shoes.

Total as per invoices	\$950 50
Issued to—	
Engineer department.....	29 50
Washington Asylum.....	921 00
	<hr/> 950 50

CLASS 9.—Saddlery.

Total as per invoices	\$1,500 96
Issued to—	
Commissioners	103 00
Engineer department.....	13 00
Water department	116 96
Surveyor	22 80
District offices	21 00
Fire department	991 04
Police court.....	23 74
Washington Asylum.....	209 42
	<hr/> 1,500 96

CLASS 10.—Drugs, chemicals, and paints.

Total as per invoices	\$2,020 53
Issued to—	
Engineer department	49 70
Water department	205 34
Public schools.....	213 66
Fire department	382 55
Police court.....	3 10
Washington Asylum.....	905 12
Fire-alarm telegraph	259 86
Parking commission.....	1 20
	<hr/> 2,020 53

CLASS 11.—Lumber and building material.

Total as per invoices	\$6,183 79
Issued to—	
Engineer department.....	1,979 63
Water department	283 16
Public schools.....	735 44
Fire department	426 63
Washington Asylum.....	1,235 72
Parking commission.....	1,523 21
	<hr/> 6,183 79

CLASS 12.—Forage.

Total as per invoices.....	\$4,331 76
Issued to—	
Water Department.....	235 33
Fire Department.....	3,177 85
Washington Asylum.....	918 58
	<hr/> 4,331 76

CLASS 13.—Fresh and salt meats.

Total as per invoices.....	\$3,788 59
Issued to—	
Washington Asylum.....	3,788 59
	<hr/> 3,788 59

CLASS 14.—*Ice.*

Total as per invoices.....	\$108 75
Issued to—	
District offices.....	68 15
Public schools.....	1 15
Fire department.....	18 60
Police court.....	3 10
Washington Asylum.....	17 75
	<hr/> 108 75

CLASS 15.—*Street-lamps, lamp-posts and castings.*

Total as per invoices.....	\$1,756 24
Issued to—	
Engineer department.....	1,635 79
Water department.....	6 50
Public schools.....	1 50
Fire department.....	25 70
Washington Asylum.....	86 75
	<hr/> 1,756 24

CLASS 16.—*Fuel.*

Total as per invoices.....	\$5,694 59
Issued to—	
Engineer department.....	24 33
Water department.....	1,579 76
Attorney.....	25 30
Surveyor.....	19 80
District offices.....	711 55
Public schools.....	2,326 26
Fire department.....	590 36
Police court.....	160 70
Washington Asylum.....	256 53
	<hr/> 5,694 59

CLASS 17.—*Construction material.*

Balance on hand November 1, 1877.....	\$51,485 73
Amount received.....	10,122 26
Total to be accounted for.....	<hr/> 61,607 99
Issued to engineer department.....	19,366 54
Balance remaining on hand.....	<hr/> 42,241 45

CLASS 18.—*Miscellaneous, supplies, expenses, repairs, &c.*

Total as per invoices.....	\$11,743 14
Issued to—	
Water department.....	2,994 52
Surveyor's department.....	190 95
District offices.....	2,077 54
Public schools.....	298 05
Fire department.....	4,351 37
Police court.....	185 70
Washington Asylum.....	539 20
Superintendent of lamps.....	249 04
Hauling, livery, and washing.....	858 77
	<hr/> 11,743 14

U.—EXPENDITURES BY THE UNITED STATES IN THE DISTRICT OF COLUMBIA.

Extracts from Executive Document 84, Second session Forty-fifth Congress, showing expenditures from the national Treasury in which the private property of the District of Columbia derived an exclusive benefit or a joint benefit with the United States.

Page.		
	14. Lighting	\$1,335,757 70
	17. Gas-fitting, &c	40,999 78
	21. Improvement of Capitol grounds	1,634,258 51
	45. Grounds, Executive Mansion	269,071 27
	46. Watchmen, Executive Mansion	26,295 07
	48. Survey of land for a park	2,391 31
	49. Underdraining grounds	994 21
	60. Botanic Garden	177,603 46
	61. Grounds, Botanic Garden	126,047 99
	62. Repairs, Botanic Garden	8,605 54
	73. Survey of Potomac River	1,208 61
	89. Improvements of grounds, Agricultural Department	130,968 97
	105. Improvement of grounds, Smithsonian	10,912 50
	112. Columbia Hospital	470,134 51
	114. Columbia Hospital	538,165 33
	115. Washington Infirmary	29,597 22
	115. Maryland Institution for the Blind	17,251 97
	115. National Association for colored women and children	40,000 00
	116. Providence Hospital	60,000 00
	116. Saint John's Hospital	25,000 00
	116. Children's Hospital	15,000 00
	117. Women's Christian Association	25,000 00
	117. Little Sisters of the Poor	25,000 00
	119. Columbia Hospital	256,795 64
	119. Transient paupers	203,285 15
	120. Relief of the poor	141,500 00
	121. Public schools	178,588 51
	122. Washington jail	603,582 61
	125. Penitentiary	601,656 30
	126. Reform School	221,056 42
	126. Support of convicts	105,574 73
	127. Salary of warden of jail	22,386 44
	128. Metropolitan police	2,864,073 29
	129. Circuit court-room	11,156 00
	129. Court-rooms, City Hall	32,496 26
	133. Washington Aqueduct	3,732,546 72
	135. Water-pipes and fire-plugs	168,275 44
	136. Fire-engines, &c	51,594 00
	136. Site for engine-house	18,000 00
	136. Maintenance of fire department	84,291 66
	137. Erection of engine-house	10,000 00
	137. Washington Canal	150,000 00
	138. Washington City Canal	40,000 00
	139. Dredging the canal	39,188 83
	139. Filling the canal	68,230 00
	141. Bridge, Long	360,379 37
	142. Bridge, Chain	382,522 87
	143. Drawkeepers	118,361 76
	143. Bridges over Eastern Branch	51,999 00
	144. Bridges over Eastern Branch	24,125 02
	145. Navy-Yard and upper bridges	140,723 40
	145. Bridges at Little Falls	33,916 57
	145. Navy-Yard Bridge	32,540 13
	145. Anacostia Bridge	146,000 00
	149. Increased compensation of watchmen public grounds	1,050 00
	150. Employés of public grounds	239,823 90
	152. Day-watchmen	19,817 50
	152. Watchmen at Capitol	1,781 25
	153. Laborers on public grounds	258,109 56
	153. Watchmen Reservation No 2	24,876 55
	154. Watchmen Franklin Square	2,823 25
	154. Low grounds near canal	2,500 00

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154. Clearing snow from walks.....	\$3,893 17
155. Hire of carts.....	31,031 87
155. Manure.....	19,362 50
156. Trees and boxes.....	64,446 25
157. Tools for laborers.....	10,369 48
158. Care of grounds.....	585,000 00
158 to 163. } Improving reservations.....	339,466 72
167. Pennsylvania avenue.....	421,283 68
167. Opening streets and avenues.....	23,614 75
167. Paving Fifteenth street.....	12,527 04
168. Indiana avenue.....	29,499 79
168. Maryland avenue.....	9,000 00
169. New Jersey avenue.....	36,728 90
169. Fourth-and-a-half street.....	5,950 00
169. Twelfth and Fourteenth streets.....	9,000 00
169. Seventeenth street.....	5,500 00
169. Delaware avenue.....	2,000 00
169. B street south.....	7,979 50
169. Fourth-street sewer-traps.....	200 00
170. Improvements, act May 17, 1848.....	5,000 00
170. Flagging sidewalks.....	18,994 20
170. Maine avenue.....	1,857 62
170. Missouri avenue.....	1,912 97
171. East Capitol street.....	14,991 88
171. Virginia avenue.....	21,952 16
171. Sixth street west.....	3,998 45
171. Arch over Tiber Creek.....	5,000 00
171. Executive avenue.....	25,219 25
171. B street south from Sixth to Seventh.....	5,983 63
173. Miscellaneous improvements.....	5,265,078 96
174. Sewers under Pennsylvania avenue.....	21,862 94
174. Sewers under Fifteenth street.....	5,159 26
175. Completing the grades.....	15,000 00
175. Loans of 1798.....	100,000 00
175. Maryland loan A.....	25,400 93
175. Maryland loan interest.....	3,250 00
176. Maryland loan B.....	200,000 00
176. Maryland loan interest.....	62,223 91
177. Holland loan.....	1,499,300 00
177. Holland loan interest.....	1,152,917 97
177. Holland loan premium.....	112,890 00
177. Interest on 3.65 bonds.....	367,500 00
Reimbursement of advances:	
178. For improving streets.....	5,000 00
178. For paving Fifteenth street.....	2,309 90
178. For settlement of claims.....	31,971 34
179. For work around government reservations.....	294,535 75
179. For improvement of avenues.....	1,000,000 00
179. Interest on city debt.....	70,000 00
183. Changing Tiber Creek into a sewer.....	55,903 71
185. Office register of deeds.....	4,299 60
190. Custom-house, Georgetown.....	59,766 50
190. Reconstructing bridges and market-houses.....	13,000 00
190. Improvement of harbors.....	43,000 00
191. Improving Potomac River.....	49,993 39
191. Relief of citizens of Alexandria.....	20,000 00
191. County jail, Alexandria.....	11,699 16
191. Court-house, Alexandria.....	18,550 00
192. Salaries, District government.....	89,412 21
192. Refunding expenses.....	46,202 70
193. Purchase of City Hall.....	75,000 00
193. Repairs City Hall.....	8,467 29
193. Painting City Hall.....	3,157 98
193. Salaries inspectors of gas and meters.....	5,472 78
194. Support of Freedmen's Hospital.....	218,487 49
194. Expenses board of health.....	178,376 00



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